

**Birla Institute of Technology & Science (BITS), Pilani**  
**Practice School Division**  
**Second Semester 2024-2025 (January 6, 2025 – June 18, 2025)**  
**PS Chronicles**  
**(A compilation of student experiences during PS-II)**



**BITS Pilani**  
Pilani | Dubai | Goa | Hyderabad | Mumbai  
**An Institution of Eminence**



## **From the Desk of the Editor**

It is my great pleasure to bring forth the 18th edition of the PS-II Chronicles. This edition features over 690 plus articles from students (Pilani, K.K. Birla Goa, and Hyderabad) sharing their experiences during II Semester of 2024-2025. This sustained high numbers of experience sharing are a testimony to the usefulness of the PS- II Chronicles and its increasing popularity, especially during the PS preference form filling process.

The primary aim of the PS-II Chronicles is to record the overall PS-II experiences of all the stakeholders – the students, the PS faculty and the Industry mentors. Currently, this version is the compilation of all student experiences. The objectives of this Chronicles are manifold  
Prospective PS-II students can get to know about the experiences of their seniors, currently at PS – thereby increasing awareness in the student community.

Increasing awareness among faculty about the nature of work happening at various PS-II stations.  
Bring back the experiences gained at PS-II station into academics - making the curriculum more industry relevant.

I would like to thank Prof. G. Muthukumar and Prof. Rajan Pandey who have participated in this activity - the students, the industry mentors and the PS faculty for sharing their experiences directly or indirectly. I would also extend my thanks to Mr. Om Prakash Singh Shekhawat, Ms. Ankita Duggal, and for his help in bringing out the edition of PS-II Chronicles. Special thanks to Mr. Shyam Sunder Saini for the follow up with PS faculty regarding the chronicles.

I would be happy to receive any feedback regarding the Chronicles. Please feel free to email me at [associatedeanpsd@pilani.bits-pilani.ac.in](mailto:associatedeanpsd@pilani.bits-pilani.ac.in)

S. Murugesan  
Associate Dean, Student Counselling Cell  
Practice School Division

## Table of Contents

|                                                                                                              |    |
|--------------------------------------------------------------------------------------------------------------|----|
| From the Desk of the Editor .....                                                                            | 1  |
| PS-II STATION: 1CLICKTECH GLOBAL SERVICES PVT. LTD., GURGAON .....                                           | 53 |
| FACULTY NAME: GOPALAKRISHNAN VENKITESWARAN.....                                                              | 53 |
| STUDENT NAME: NITIN GAUTAM (2020B4A42132G).....                                                              | 53 |
| PS-II STATION: 1CLICKTECH GLOBAL SERVICES PVT. LTD., GURGAON.....                                            | 53 |
| FACULTY NAME: GOPALAKRISHNAN VENKITESWARAN.....                                                              | 53 |
| STUDENT NAME: ANISH KUMAR MISHRA (2020B5AA0690H).....                                                        | 53 |
| PS-II STATION: 73 STRINGS PVT. LTD., BENGALURU .....                                                         | 54 |
| FACULTY NAME: RAJA VADHANA PRABHAKAR.....                                                                    | 54 |
| STUDENT NAME: SHUBHAM SHARMA (2020B2A42540H) .....                                                           | 54 |
| PS-II STATION: A.T. KEARNEY CONSULTING (INDIA) PVT. LTD., GURGAON .....                                      | 55 |
| FACULTY NAME: ANJANI SRIKANTH KOKA .....                                                                     | 55 |
| STUDENT NAME: ADITI PRABHU (2020B2A12454H).....                                                              | 55 |
| PS-II STATION: ACCENTURE- DATA & AI INTERN, BENGALURU .....                                                  | 56 |
| FACULTY NAME: GAURAV NAGPAL.....                                                                             | 56 |
| STUDENT NAME: PRAMENDRA KUMAR SINGH (2023H1540812P) .....                                                    | 56 |
| PS-II STATION: ADITYA BIRLA CAPITAL LTD., MUMBAI .....                                                       | 57 |
| FACULTY NAME: BANDI VENKATA PRASAD.....                                                                      | 57 |
| STUDENT NAME: ARJUN KATWAL (2023H1540842P).....                                                              | 57 |
| PS-II STATION: ADITYA BIRLA DIGITAL FASHION VENTURES – (TMRW HOUSE OF BRANDS) - FRONTEND,<br>BENGALURU ..... | 57 |
| FACULTY NAME: K VENKATASUBRAMANIAN.....                                                                      | 57 |
| STUDENT NAME: KODAM ROHIT KISAN (2020B3A71141G) .....                                                        | 57 |
| PS-II STATION: ADITYA BIRLA SCIENCE & TECHNOLOGY COMPANY (ABSTC) PVT. LTD., MUMBAI.....                      | 58 |
| FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE.....                                                                | 58 |
| STUDENT NAME: N GEETHA MADHURI (2023H1010015H) .....                                                         | 58 |
| PS-II STATION: AGROSTAR, PUNE .....                                                                          | 59 |
| FACULTY NAME: BANDI VENKATA PRASAD .....                                                                     | 59 |
| STUDENT NAME: TANUJ MAKARAND VAIDYA (2021A1PS2818G).....                                                     | 59 |
| PS-II STATION: AGROSTAR, PUNE .....                                                                          | 61 |
| FACULTY NAME: BANDI VENKATA PRASAD .....                                                                     | 61 |
| STUDENT NAME: ANISHA CHERIAN (2023H1030062G).....                                                            | 61 |
| PS-II STATION: AGROSTAR, PUNE .....                                                                          | 62 |

|                                                                              |    |
|------------------------------------------------------------------------------|----|
| FACULTY NAME: BANDI VENKATA PRASAD .....                                     | 62 |
| STUDENT NAME: METTUPALLE CHINNAIAHGARI SAI SUHAS REDDY (2023H1030086H) ..... | 62 |
| PS-II STATION: ALLEGRO MICRO SYSTEMS, PUNE .....                             | 63 |
| FACULTY NAME: MANOJ SUBHASH KAKADE .....                                     | 63 |
| STUDENT NAME: ANAGH ADITYA (2021A3PS1567H) .....                             | 63 |
| PS-II STATION: ALLEGRO MICRO SYSTEMS, PUNE .....                             | 63 |
| FACULTY NAME: MANOJ SUBHASH KAKADE .....                                     | 63 |
| STUDENT NAME: MADDALI SOHIT VENKATA SAI (2023H1230178H) .....                | 63 |
| PS-II STATION: ALMACONNECT, GURGAON .....                                    | 64 |
| FACULTY NAME: SIDHARTH MISHRA .....                                          | 64 |
| STUDENT NAME: VIRAJ BARAL (2020B5A42290H) .....                              | 64 |
| PS-II STATION: ALTAIR, BENGALURU .....                                       | 65 |
| FACULTY NAME: PRAKRUTHI HAREESH .....                                        | 65 |
| STUDENT NAME: ANAND KIRAN THACKER (2020B4A42366H) .....                      | 65 |
| PS-II STATION: ALUMNI AFFAIRS DIVISION, PILANI .....                         | 66 |
| FACULTY NAME: ANJANI SRIKANTH KOKA .....                                     | 66 |
| STUDENT NAME: ARPIT SHARMA (2016B1A20654P) .....                             | 66 |
| PS-II STATION: AMAZON - ASIC, BENGALURU .....                                | 67 |
| FACULTY NAME: VIJAYALAKSHMI ANAND .....                                      | 67 |
| STUDENT NAME: RUGMA R (2023H1400128P) .....                                  | 67 |
| PS-II STATION: AMAZON APPLIED SCIENTIST, BENGALURU .....                     | 67 |
| FACULTY NAME: VIJAYALAKSHMI ANAND .....                                      | 67 |
| STUDENT NAME: RIDDHI PRAVIN ZANTYE (2020B3A30559G) .....                     | 67 |
| PS-II STATION: AMAZON APPLIED SCIENTIST, BENGALURU .....                     | 68 |
| FACULTY NAME: VIJAYALAKSHMI ANAND .....                                      | 68 |
| STUDENT NAME: TEJAS ALISYAM (2020B5A40974H) .....                            | 68 |
| PS-II STATION: AMAZON SDE, BENGALURU .....                                   | 69 |
| FACULTY NAME: VIJAYALAKSHMI ANAND .....                                      | 69 |
| STUDENT NAME: MANISHA MATHUR (2020B3A31776G) .....                           | 69 |
| PS-II STATION: AMAZON SDE, BENGALURU .....                                   | 70 |
| FACULTY NAME: VIJAYALAKSHMI ANAND .....                                      | 70 |
| STUDENT NAME: ANISH SREENIVAS (2020B3A71464G) .....                          | 70 |
| PS-II STATION: AMAZON SDE, BENGALURU .....                                   | 71 |
| FACULTY NAME: VIJAYALAKSHMI ANAND .....                                      | 71 |
| STUDENT NAME: ISHAN SINGH (2020B3AA1505H) .....                              | 71 |
| PS-II STATION: AMAZON SDE, BENGALURU .....                                   | 72 |

|                                                                                                          |    |
|----------------------------------------------------------------------------------------------------------|----|
| FACULTY NAME: VIJAYALAKSHMI ANAND .....                                                                  | 72 |
| STUDENT NAME: TUSHAR RAGHANI (2021A7PS1404H).....                                                        | 72 |
| PS-II STATION: AMAZON SDE, BENGALURU .....                                                               | 72 |
| FACULTY NAME: VIJAYALAKSHMI ANAND .....                                                                  | 72 |
| STUDENT NAME: VAIBHAV SINGLA . (2021A7PS2227P) .....                                                     | 72 |
| PS-II STATION: ADVANCED MICRO DEVICES (AMD), HYDERABAD.....                                              | 73 |
| FACULTY NAME: SUPARNA CHAKRABORTY .....                                                                  | 73 |
| STUDENT NAME: MAYANK SHARMA (2020B5AA2353H).....                                                         | 73 |
| Objectives of the project: .....                                                                         | 74 |
| PS-II STATION: ADVANCED MICRO DEVICES (AMD), HYDERABAD.....                                              | 74 |
| FACULTY NAME: SUPARNA CHAKRABORTY .....                                                                  | 74 |
| STUDENT NAME: NARAYAN KUMAR CHOUDHARY (2023H1400121P).....                                               | 74 |
| PS-II STATION: APPLE SOFTWARE ENGINEERING-WTE TEAM, BENGALURU .....                                      | 75 |
| FACULTY NAME: VENKATESWARA RAO THUNUGUNTLA.....                                                          | 75 |
| STUDENT NAME: AMIT GHOSH (2021A7PS0181H).....                                                            | 75 |
| PS-II STATION: APPLE SOFTWARE ENGINEERING-WTE TEAM, BENGALURU .....                                      | 76 |
| FACULTY NAME: VENKATESWARA RAO THUNUGUNTLA.....                                                          | 76 |
| STUDENT NAME: ADITYA KUMAR SHARMA (2021A7PS3112H) .....                                                  | 76 |
| PS-II STATION: APPLE- SW-BPR TEAM, HYDERABAD.....                                                        | 77 |
| FACULTY NAME: VENKATESWARA RAO THUNUGUNTLA .....                                                         | 77 |
| STUDENT NAME: SPARSH GOENKA (2021A7PS2413P) .....                                                        | 77 |
| 2023H15408598HYDERABAD .....                                                                             | 78 |
| FACULTY NAME: SRINIVAS KOTA.....                                                                         | 78 |
| STUDENT NAME: JISHNU SHENOI (2021A4PS1371G).....                                                         | 78 |
| PS-II STATION: APPLE-SOFTWARE DEVELOPMENT- BPR TEAM-BUSINESS PROCESS RE- ENGINEERING,<br>BENGALURU ..... | 79 |
| FACULTY NAME: VENKATESWARA RAO THUNUGUNTLA STUDENT NAME: .....                                           | 79 |
| PS-II STATION: APPLE-SOFTWARE DEVELOPMENT ENGINEERING, IS&T, HYDERABAD .....                             | 79 |
| FACULTY NAME: VENKATESWARA RAO THUNUGUNTLA.....                                                          | 79 |
| STUDENT NAME: ADAPALA SANJANA (2020B4A72243H) .....                                                      | 79 |
| PS-II STATION: APPLE-SOFTWARE DEVELOPMENT ENGINEERING, IS&T, HYDERABAD .....                             | 80 |
| FACULTY NAME: VENKATESWARA RAO THUNUGUNTLA.....                                                          | 80 |
| STUDENT NAME: BURHANUDDIN MURTAZA TINWALA (2021A7PS2905H) .....                                          | 80 |
| PS-II STATION: APTIV, BENGALURU .....                                                                    | 81 |
| FACULTY NAME: SANGEETHA VISWANATHAN.....                                                                 | 81 |
| PS-II STATION: APTIV, BENGALURU .....                                                                    | 82 |

|                                                                                            |    |
|--------------------------------------------------------------------------------------------|----|
| FACULTY NAME: SANGEETHA VISWANATHAN .....                                                  | 82 |
| STUDENT NAME: ADITYA ANANT SHANKAR SINGH (2021A3PS2722H) .....                             | 82 |
| PS-II STATION: APTIV, BENGALURU.....                                                       | 82 |
| FACULTY NAME: SANGEETHA VISWANATHAN .....                                                  | 82 |
| STUDENT NAME: DHARANIKANTH REDDY YERASI (2021A7PS0264H).....                               | 82 |
| PS-II STATION: APTIV, BENGALURU .....                                                      | 83 |
| FACULTY NAME: SANGEETHA VISWANATHAN.....                                                   | 83 |
| STUDENT NAME: NITIN JINAGAM (2021A8PS1056H).....                                           | 83 |
| PS-II STATION: APTIV, BENGALURU .....                                                      | 84 |
| FACULTY NAME: SANGEETHA VISWANATHAN.....                                                   | 84 |
| STUDENT NAME: CHITRESH NEEMA (2021AAPS0265P) .....                                         | 84 |
| PS-II STATION: APTIV, BENGALURU.....                                                       | 85 |
| FACULTY NAME: SANGEETHA VISWANATHAN .....                                                  | 85 |
| STUDENT NAME: JANMANCHI SRIRAJ (2021AAPS2624G) .....                                       | 85 |
| PS-II STATION: AQUACARTA (PARTNERED BY WATERLIFE INDIA ) - AERIAL IMAGERY, HYDERABAD ..... | 86 |
| FACULTY NAME: Y V K RAVI KUMAR.....                                                        | 86 |
| STUDENT NAME: CHAMPATI KAVYA GITANJALI (2020B2A32426H) .....                               | 86 |
| PS-II STATION: ARISTA NETWORKS INDIA PVT. LTD., PUNE.....                                  | 86 |
| FACULTY NAME: SANGEETHA VISWANATHAN.....                                                   | 86 |
| STUDENT NAME: ISHAN VIKRAM NERLEKAR (2020B3A71515G).....                                   | 86 |
| PS-II STATION: ARM EMBEDDED TECHNOLOGIES PVT. LTD., BENGALURU .....                        | 88 |
| FACULTY NAME: MANOJ SUBHASH KAKADE.....                                                    | 88 |
| STUDENT NAME: ARUNIMA THAKUR (2023H1230144G) .....                                         | 88 |
| PS-II STATION: ARM EMBEDDED TECHNOLOGIES PVT. LTD., BENGALURU .....                        | 88 |
| FACULTY NAME: MANOJ SUBHASH KAKADE.....                                                    | 88 |
| STUDENT NAME: BHOOMI VARSHNEY (2023H1230174P).....                                         | 88 |
| PS-II STATION: ASBL, HYDERABAD.....                                                        | 89 |
| FACULTY NAME: MUTHUKUMAR G . .....                                                         | 89 |
| STUDENT NAME: SHREERAM JITENDRA PETKAR (2020B3A21966P) .....                               | 89 |
| PS-II STATION: ASBL, HYDERABAD .....                                                       | 90 |
| FACULTY NAME: MUTHUKUMAR G . .....                                                         | 90 |
| STUDENT NAME: SHRIYANSH AGARWAL (2021A2PS2381P) .....                                      | 90 |
| PS-II STATION: ASTERA LABS, BENGALURU .....                                                | 91 |
| FACULTY NAME: KRANTHI KUMAR PALAVALASA .....                                               | 91 |
| STUDENT NAME: ANUJ RAMESH PARTANI (2020B2A81199G) .....                                    | 91 |
| PS-II STATION : ASTERA LABS ,BENGALURU .....                                               | 91 |

|                                                                      |     |
|----------------------------------------------------------------------|-----|
| FACULTY NAME: KRANTHI KUMAR PALAVALASA .....                         | 91  |
| STUDENT NAME: SAUMARJIT GOSWAMI (2020B2AA2115G).....                 | 91  |
| PS-II STATION: ASTERA LABS ,BENGALURU .....                          | 92  |
| FACULTY NAME: KRANTHI KUMAR PALAVALASA .....                         | 92  |
| STUDENT NAME: MANEY SAVIO KIDANGAN (2020B4AA1999G).....              | 92  |
| PS-II STATION : ATKINSREALIS, BENGALURU ,BENGALURU .....             | 93  |
| FACULTY NAME: MUTHUKUMAR G .....                                     | 93  |
| STUDENT NAME: PURANAM SRI VENKATA NAGA KARTHIK (2023H1060160H).....  | 93  |
| PS-II STATION: ATKINSREALIS, BENGALURU .....                         | 94  |
| FACULTY NAME: MUTHUKUMAR G.....                                      | 94  |
| STUDENT NAME: NAVANEETH KRISHNAN S (2023H1430052P) .....             | 94  |
| PS-II STATION: ATKINSREALIS, GURUGRAM .....                          | 95  |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA .....                          | 95  |
| STUDENT NAME: HRITURAJ DEBNATH (2023H1430034P).....                  | 95  |
| PS-II STATION : AVALARA TECHNOLOGIES, PUNE .....                     | 96  |
| FACULTY NAME: PRAVIN YASHWANT PAWAR .....                            | 96  |
| STUDENT NAME: RIJUL BASSAMBOO . (2021A7PS0009P).....                 | 96  |
| PS-II STATION: AXTRIA INDIA PVT. LTD, BENGALURU .....                | 97  |
| FACULTY NAME: ARINDAM ROY .....                                      | 97  |
| STUDENT NAME: AIGAL CHETAS MANJUNATH (2023H1540802P).....            | 97  |
| PS-II STATION: AXTRIA INDIA PVT. LTD, BENGALURU .....                | 98  |
| FACULTY NAME: ARINDAM ROY .....                                      | 98  |
| STUDENT NAME: VUDAYAGIRI SAI SHIVA KUMAR (2023H1540859P).....        | 98  |
| PS-II STATION: BAJAJ ELECTRICALS, MUMBAI.....                        | 99  |
| FACULTY NAME: SAMEER GUPTA.....                                      | 99  |
| STUDENT NAME: PULKIT DEEPAK SINGLA (2021A3PS2588G) .....             | 99  |
| PS-II STATION: BHARAT FORGE LTD., PUNE .....                         | 100 |
| FACULTY NAME: NAGA VAMSI KRISHNA JASTI .....                         | 100 |
| STUDENT NAME: SREENATH S (2023H1410111H).....                        | 100 |
| PS-II STATION: BIGBASKET, BENGALURU .....                            | 100 |
| FACULTY NAME: GAURAV NAGPAL.....                                     | 100 |
| STUDENT NAME: TEEGALA JAYA VENKATA SRI DHEERAJ (2018B5A10905G) ..... | 100 |
| PS-II STATION: BIGBASKET, BENGALURU .....                            | 101 |
| FACULTY NAME: GAURAV NAGPAL .....                                    | 101 |
| STUDENT NAME: BHAVYA L NARAYANAN (2020B5A81570G).....                | 101 |
| PS-II STATION: BIGBASKET, BENGALURU .....                            | 102 |



|                                                             |     |
|-------------------------------------------------------------|-----|
| FACULTY NAME: GAURAV NAGPAL .....                           | 102 |
| STUDENT NAME: ANISH HATUA. (2021A8PS0741P) .....            | 102 |
| PS-II STATION: BITESPEED - FOUNDER'S OFFICE, BENGALURU..... | 103 |
| FACULTY NAME: PARAG RASTOGI .....                           | 103 |
| STUDENT NAME: NAMAN MADAN. (2020B3A70851P) .....            | 103 |
| PS-II STATION: BITGO, BENGALURU.....                        | 104 |
| FACULTY NAME: LUCY J. GUDINO .....                          | 104 |
| STUDENT NAME: SAKSHI JOSHI (2023H1030048G) .....            | 104 |
| PS-II STATION: BITGO, BENGALURU.....                        | 105 |
| FACULTY NAME: LUCY J. GUDINO .....                          | 105 |
| STUDENT NAME: ABHILASH TRIPATHI (2023H1120199P) .....       | 105 |
| PS-II STATION: BLACKROCK AFE, GURGAON.....                  | 106 |
| FACULTY NAME: NISHIT NARANG .....                           | 106 |
| STUDENT NAME: ADITYA RAJSHEKHAR HALLI (2020B4A81851G) ..... | 106 |
| PS-II STATION: BLACKROCK QAE, GURGAON .....                 | 107 |
| FACULTY NAME: NISHIT NARANG .....                           | 107 |
| STUDENT NAME: SOHAM BARUI (2020B3AA1170H) .....             | 107 |
| PS-II STATION: BLACKROCK QAE, GURGAON .....                 | 108 |
| FACULTY NAME: NISHIT NARANG. ....                           | 108 |
| STUDENT NAME: TRIPATHI ABHAY A (2023H1120190P) .....        | 108 |
| PS-II STATION: BLACKROCK QAE, MUMBAI .....                  | 109 |
| FACULTY NAME: NISHIT NARANG .....                           | 109 |
| STUDENT NAME: ARIN VERMA (2020B3A71847H).....               | 109 |
| PS-II STATION: BLACKROCK QAE, MUMBAI .....                  | 110 |
| FACULTY NAME: NISHIT NARANG .....                           | 110 |
| STUDENT NAME: MOHD. ASHRAF ANSARI (2023H1030080P) .....     | 110 |
| PS-II STATION: BLOKTREK, BENGALURU .....                    | 110 |
| FACULTY NAME: LUCY J. GUDINO .....                          | 110 |
| STUDENT NAME: NISHANT. (2020B2A41952P).....                 | 110 |
| PS-II STATION: BLOKTREK, BENGALURU .....                    | 111 |
| FACULTY NAME: LUCY J. GUDINO .....                          | 111 |
| STUDENT NAME: VIDHI CHETAN SHAH (2021A3PS2645H).....        | 111 |
| PS-II STATION: BLOKTREK, BENGALURU .....                    | 112 |
| FACULTY NAME: LUCY J. GUDINO .....                          | 112 |
| STUDENT NAME: ISHA PARGAONKAR (2021A3PS2803H).....          | 112 |
| PS-II STATION: BLUE STAR LIMITED, MUMBAI.....               | 113 |



|                                                                   |     |
|-------------------------------------------------------------------|-----|
| FACULTY NAME: BENU MADHAB GEDAM.....                              | 113 |
| STUDENT NAME: NAIPUNYA MANOJ PATIL (2023H1060157P) .....          | 113 |
| PS-II STATION: BOTANIC HEALTHCARE, HYDERABAD .....                | 114 |
| FACULTY NAME: BHARATHI R .....                                    | 114 |
| STUDENT NAME: NIKHIL SUNIL PATIL (2023H1010016H).....             | 114 |
| PS-II STATION: BOTANIC HEALTHCARE, HYDERABAD .....                | 115 |
| FACULTY NAME: BHARATHI R .....                                    | 115 |
| STUDENT NAME: GHOLAP DARSHANI SANDEEP (2023H1290006H) .....       | 115 |
| PS-II STATION: BOTANIC HEALTHCARE, HYDERABAD .....                | 116 |
| FACULTY NAME: BHARATHI R. ....                                    | 116 |
| STUDENT NAME: ARITRA CHANDRA (2023H1290011H).....                 | 116 |
| PS-II STATION: BOTANIC HEALTHCARE, HYDERABAD .....                | 117 |
| FACULTY NAME: BHARATHI R. ....                                    | 117 |
| STUDENT NAME: BIDISHA GANGULY (2023H1290012H).....                | 117 |
| PS-II STATION: CADENCE DESIGN SYSTEMS, BENGALURU .....            | 118 |
| FACULTY NAME: SANJAY VIDHYADHARAN.....                            | 118 |
| STUDENT NAME: VISHRUT SHAH (2021AAPS2957H).....                   | 118 |
| PS-II STATION: CADENCE DESIGN SYSTEMS, PUNE .....                 | 119 |
| FACULTY NAME: SANJAY VIDHYADHARAN.....                            | 119 |
| STUDENT NAME: SARVESH BHAGTANI (2021A8PS2741G) .....              | 119 |
| PS-II STATION: CAPITAL ONE, BENGALURU .....                       | 120 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.....                       | 120 |
| STUDENT NAME: DHURV SHRIMALI. (2021A7PS0008P) .....               | 120 |
| PS-II STATION: CAPITAL ONE, BENGALURU .....                       | 121 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.....                       | 121 |
| STUDENT NAME: SHUBHAM GUPTA. (2021A7PS0468P) .....                | 121 |
| PS-II STATION: CAPITAL ONE, BENGALURU .....                       | 121 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.....                       | 121 |
| STUDENT NAME: PRATEEK KASHYAP. (2021A7PS1449P) .....              | 121 |
| PS-II STATION: CAPITAL ONE, BENGALURU .....                       | 123 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.....                       | 123 |
| STUDENT NAME: SIDDHARTH S SHAH. (2021A7PS2428P).....              | 123 |
| PS-II STATION: CARRIER TECHNOLOGIES INDIA LIMITED, HYDERABAD..... | 124 |
| FACULTY NAME: RAKESHA CHANDRA DASH. ....                          | 124 |
| STUDENT NAME: SHILPEE CHETAN MADHANI (2021A8PS0821G).....         | 124 |
| PS-II STATION: CARRIER TECHNOLOGIES INDIA LIMITED, HYDERABAD..... | 125 |

|                                                                                                           |     |
|-----------------------------------------------------------------------------------------------------------|-----|
| FACULTY NAME: RAKESHA CHANDRA DASH.....                                                                   | 125 |
| STUDENT NAME: RACHANA SRI CHINTALAPATI (2021AAPS0645H) .....                                              | 125 |
| PS-II STATION: CARRIER TECHNOLOGIES INDIA LIMITED, HYDERABAD.....                                         | 126 |
| FACULTY NAME: RAKESHA CHANDRA DASH.....                                                                   | 126 |
| STUDENT NAME: VADDE AVINASH REDDY (2021AAPS2933G) .....                                                   | 126 |
| PS-II STATION: CATERPILLAR INDIA PVT.LTD., , CHENNAI.....                                                 | 127 |
| FACULTY NAME: GLYNN JOHN. ....                                                                            | 127 |
| STUDENT NAME: KELLI HARITHA LAVANYA (2023H1060119G).....                                                  | 127 |
| PS-II STATION: CEG LIMITED, JAIPUR.....                                                                   | 128 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA. ....                                                               | 128 |
| STUDENT NAME: ROHIT CHOUDHARY (2023H1430044P) .....                                                       | 128 |
| PS-II STATION: CEG, MUMBAI.....                                                                           | 129 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA. ....                                                               | 129 |
| STUDENT NAME: YUSUF PARVEZ SHAIKH (2023H1430032P) .....                                                   | 129 |
| PS-II STATION: CIRT- CENTRAL INSTITUTE OF ROAD TRANSPORT, PUNE .....                                      | 130 |
| FACULTY NAME: SAMATA SATISH MUJUMDAR.....                                                                 | 130 |
| STUDENT NAME: NAINAR SURAJ MANIVANNAN (2020B2A41993G) .....                                               | 130 |
| PS-II STATION: CIRT- CENTRAL INSTITUTE OF ROAD TRANSPORT, PUNE .....                                      | 131 |
| FACULTY NAME: SAMATA SATISH MUJUMDAR.....                                                                 | 131 |
| STUDENT NAME: GANTAVYA SHARMA (2021A4PS3100H).....                                                        | 131 |
| PS-II STATION: CISPL-COMPLETE INSTRUMENTATION SOLUTIONS PVT.LTD., , PAVEMENT ENGINEERING,<br>GURGAON..... | 132 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA.....                                                                | 132 |
| STUDENT NAME: CHARANKAR ATHARVA SUDHIR (2023H1300045H) .....                                              | 132 |
| PS-II STATION: CLEAR TAX, BENGALURU .....                                                                 | 133 |
| FACULTY NAME: FEBIN A VAHAB. ....                                                                         | 133 |
| STUDENT NAME: VISHNU PEDDINENI (2020B3AA0371H) .....                                                      | 133 |
| PS-II STATION: CLOUDFILES TECHNOLOGIES INC- IT, BENGALURU .....                                           | 133 |
| FACULTY NAME: SHREYAS SURESH RAO. ....                                                                    | 133 |
| STUDENT NAME: VITTHAL BAJPAI (2020B1A12082G) .....                                                        | 133 |
| PS-II STATION: CLOUDFILES TECHNOLOGIES INC- IT, BENGALURU .....                                           | 134 |
| FACULTY NAME: SHREYAS SURESH RAO. ....                                                                    | 134 |
| STUDENT NAME: DELIWALA PREKSHA ASHISH (2023H1030050G) .....                                               | 134 |
| PS-II STATION: CME GROUP, BENGALURU.....                                                                  | 135 |
| FACULTY NAME: ARINDAM ROY.....                                                                            | 135 |
| STUDENT NAME: SANAATAN R (2021A7PS2902H) .....                                                            | 135 |

|                                                                                        |     |
|----------------------------------------------------------------------------------------|-----|
| PS-II STATION: COGNINE TECHNOLOGIES PVT. LTD., HYDERABAD .....                         | 136 |
| FACULTY NAME: PRADHEEP KUMAR K.....                                                    | 136 |
| STUDENT NAME: SHRINIVAS CHOUDHARY (2023H1030088P).....                                 | 136 |
| PS-II STATION: COHESITY STORAGE SOLUTIONS INDIA PVT. LTD., BENGALURU/PUNE .....        | 137 |
| FACULTY NAME: JYOTSANA GROVER .....                                                    | 137 |
| STUDENT NAME: SURYANSH CHANDOLA (2021A7PS0058H) .....                                  | 137 |
| PS-II STATION: COHESITY STORAGE SOLUTIONS INDIA PVT. LTD., BENGALURU/PUNE .....        | 137 |
| FACULTY NAME: JYOTSANA GROVER .....                                                    | 137 |
| STUDENT NAME: SEHAJPREET SINGH CHAWLA (2021A7PS2048G).....                             | 137 |
| PS-II STATION: COHESITY STORAGE SOLUTIONS INDIA PVT. LTD., BENGALURU/PUNE .....        | 138 |
| FACULTY NAME: JYOTSANA GROVER .....                                                    | 138 |
| STUDENT NAME: MAITREYA MANOHAR (2021A7PS2663H) .....                                   | 138 |
| PS-II STATION: COLLINS AEROSPACE, BENGALURU .....                                      | 139 |
| FACULTY NAME: SRINIVAS KOTA .....                                                      | 139 |
| STUDENT NAME: VISHNU R NAIR (2023H1420136P).....                                       | 139 |
| Tool used (Development tools - H/w, S/w) : NA.....                                     | 139 |
| PS-II STATION: COMMVAULT, BENGALURU .....                                              | 140 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI. ....                                           | 140 |
| STUDENT NAME: VARUN GOPAL (2020B3A71785G) .....                                        | 140 |
| PS-II STATION: COMMVAULT, BENGALURU .....                                              | 140 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI. ....                                           | 140 |
| STUDENT NAME: ADITI JAIN (2021A7PS1760G).....                                          | 140 |
| PS-II STATION: COMMVAULT, BENGALURU .....                                              | 141 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI. ....                                           | 141 |
| STUDENT NAME: UBAID NOOR MOHAMMED DALVI (2021A7PS2729G) .....                          | 141 |
| PS-II STATION: COMMVAULT, BENGALURU .....                                              | 142 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI. ....                                           | 142 |
| STUDENT NAME: DHARUV BIMAL SHAH (2021AAPS2860G) .....                                  | 142 |
| PS-II STATION: CONFLUENT INDIA PVT LTD., BENGALURU .....                               | 143 |
| FACULTY NAME: PRAVIN YASHWANT PAWAR.....                                               | 143 |
| STUDENT NAME: ARUNACHALA AMUDA MURUGAN (2021A7PS0205H).....                            | 143 |
| PS-II STATION: CRITICAL PATH TECHNOLOGIES PVT. LTD. (ALARYSE) - NON-TECH, GURGAON..... | 143 |
| FACULTY NAME: SIDHARTH MISHRA.....                                                     | 143 |
| STUDENT NAME: UDBHAV CHOUDHARY. (2020B1AB1905P).....                                   | 143 |
| PS-II STATION: CRITICAL PATH TECHNOLOGIES PVT. LTD. ("SALARYSE) - TECH, GURGAON .....  | 144 |
| FACULTY NAME: ANKUR PACHAURI.....                                                      | 144 |

|                                                                                      |     |
|--------------------------------------------------------------------------------------|-----|
| STUDENT NAME: SANCHIT KALRA (2020B4A32298H) .....                                    | 144 |
| PS-II STATION: CRITICAL PATH TECHNOLOGIES PVT. LTD., (ALARYSE) - TECH, GURGAON ..... | 145 |
| FACULTY NAME: ANKUR PACHAURI .....                                                   | 145 |
| STUDENT NAME: VIVEK SHARMA (2021AAPS2317H) .....                                     | 145 |
| PS-II STATION: CSIR - CENTRAL ROAD RESEARCH INSTITUTE (CRRI), NEW DELHI .....        | 146 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA. ....                                          | 146 |
| STUDENT NAME: SOUVIK DAS (2023H1430035P) .....                                       | 146 |
| PS-II STATION: CSIR-NAL, BENGALURU .....                                             | 148 |
| FACULTY NAME: SAMEER GUPTA.....                                                      | 148 |
| STUDENT NAME: PAKANATI RITESH (2021A4PS3073H) .....                                  | 148 |
| PS-II STATION: CSIR-NAL, BENGALURU .....                                             | 149 |
| FACULTY NAME: SAMEER GUPTA.....                                                      | 149 |
| STUDENT NAME: GORE ATHARVA SUHAS (2023H1060122G) .....                               | 149 |
| PS-II STATION: CSIR-NAL, BENGALURU .....                                             | 151 |
| FACULTY NAME: SAMEER GUPTA.....                                                      | 151 |
| STUDENT NAME: MEKADE KUNAL HEMANT (2023H1410080G) .....                              | 151 |
| PS-II STATION: CSIR-NAL, BENGALURU .....                                             | 151 |
| FACULTY NAME: SAMEER GUPTA.....                                                      | 151 |
| STUDENT NAME: ABHISHEK KANG (2023H1410082G) .....                                    | 151 |
| PS-II STATION: CSIR-NAL, BENGALURU .....                                             | 153 |
| FACULTY NAME: SAMEER GUPTA. ....                                                     | 153 |
| STUDENT NAME: KOSANA SUNEETH (2023H1410091G) .....                                   | 153 |
| PS-II STATION: DASSAULT SYSTEMS, PUNE.....                                           | 154 |
| FACULTY NAME: SAMEER GUPTA.....                                                      | 154 |
| STUDENT NAME: ANMOL MAISNAM (2023H1060123G).....                                     | 154 |
| PS-II STATION: DASSAULT SYSTEMS, PUNE.....                                           | 155 |
| FACULTY NAME: SAMEER GUPTA.....                                                      | 155 |
| STUDENT NAME: GAUTAM SUNIL (2023H1060155P).....                                      | 155 |
| PS-II STATION: DASSAULT SYSTEMS, PUNE.....                                           | 155 |
| FACULTY NAME: SAMEER GUPTA.....                                                      | 155 |
| STUDENT NAME: ADITH S (2023H1410103P) .....                                          | 155 |
| PS-II STATION: DATAZYMES ANALYTICS PVT.LTD., BENGALURU .....                         | 156 |
| FACULTY NAME: BHARATHI R. ....                                                       | 156 |
| STUDENT NAME: BANGAD MOHIT MANOJKUMAR (2023H1460212H).....                           | 156 |
| PS-II STATION: DBOI - BUSINESS FINANCE, MUMBAI .....                                 | 157 |
| FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN. ....                                      | 157 |

|                                                                                            |     |
|--------------------------------------------------------------------------------------------|-----|
| STUDENT NAME: JOSHI KARTIK CHANDRAJIT. (2021A4PS2107P).....                                | 157 |
| PS-II STATION: DBOI - BUSINESS FINANCE, MUMBAI.....                                        | 158 |
| FACULTYNAME: KRISHNAMURTHY BINDUMADHAVAN. ....                                             | 158 |
| STUDENT NAME: ADDYA KASHYAP (2021A4PS2805H) .....                                          | 158 |
| PS-II STATION: DBOI - GGCAF, MUMBAI.....                                                   | 159 |
| FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN.....                                             | 159 |
| STUDENT NAME: RAGVENDRA PARTAP SINGH (2020B4A41850H) .....                                 | 159 |
| PS-II STATION: DBOI - OPS, BENGALURU .....                                                 | 159 |
| FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN. ....                                            | 159 |
| STUDENT NAME: MUPPARAPU GAYATHRI CHOUDARY (2020B3A80900H) .....                            | 159 |
| PS-II STATION: DBOI MVRM EX VALS, MUMBAI.....                                              | 160 |
| FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN. ....                                            | 160 |
| STUDENT NAME: HARSHIL SHASHIKANT KAPADIA (2021A3PS0860G) .....                             | 160 |
| PS-II STATION: DBOI MVRM VALS, MUMBAI .....                                                | 161 |
| FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN.....                                             | 161 |
| PS-II STATION: DBOI MVRM VALS, MUMBAI .....                                                | 161 |
| FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN.....                                             | 161 |
| STUDENT NAME: SMRUTIRANJAN MISHRA. (2020B3A10167P) .....                                   | 161 |
| PS-II STATION: DBOI OPS BENGALURU/JAIPUR/MUMBAI .....                                      | 162 |
| FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN.....                                             | 162 |
| STUDENT NAME: RAMESTHA PRINCE. (2020B2A11941P) .....                                       | 162 |
| PS-II STATION: DEFENSE INSTITUTE OF PHYSIOLOGY & ALLIED SCIENCES (DIPAS), DRDO, DELHI..... | 163 |
| FACULTY NAME: BHARATHI R. ....                                                             | 163 |
| STUDENT NAME: SHAURYA ANAND (2023H1290003P).....                                           | 163 |
| PS-II STATION: DEVELOPMENT CONSULTANTS PVT. LTD. (DCPL), MUMBAI .....                      | 164 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA. ....                                                | 164 |
| STUDENT NAME: NAGA VENKATESH VARIGONDA (2023H1430031P) .....                               | 164 |
| PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU.....                               | 166 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.....                                                | 166 |
| STUDENT NAME: NIRMAL S (2020B5A32050G).....                                                | 166 |
| PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU.....                               | 167 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI . ....                                              | 167 |
| STUDENT NAME: DIVYATEJA PASUPULETI (2021A7PS0075H) .....                                   | 167 |
| PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU.....                               | 168 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.....                                                | 168 |
| STUDENT NAME: SHANAY SAWAN MEHTA (2021A7PS1322G) .....                                     | 168 |

|                                                                             |     |
|-----------------------------------------------------------------------------|-----|
| PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU .....               | 169 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI .....                                | 169 |
| STUDENT NAME: ITALIYA DHYEY KISHOR. (2021A7PS1463P).....                    | 169 |
| PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU .....               | 170 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI . .....                              | 170 |
| STUDENT NAME: AARYAN GARG . (2021A7PS2222P) .....                           | 170 |
| PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU .....               | 171 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI . .....                              | 171 |
| STUDENT NAME: UJJWAL AGGARWAL . (2021A7PS2427P) .....                       | 171 |
| PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU .....               | 172 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI . .....                              | 172 |
| STUDENT NAME: ANSH GOYAL (2021A7PS2614H) .....                              | 172 |
| PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU .....               | 173 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI . .....                              | 173 |
| STUDENT NAME: PRATEEK SAURABH CHITRE (2021A7PS2841G) .....                  | 173 |
| PS-II STATION: DEVREV CLOUD INDIA PVT. LTLTD., BENGALUR .....               | 174 |
| FACULTY NAME: MOHAMMAD SALEEM BAGEWADI . .....                              | 174 |
| STUDENT NAME: GIRIRAJ CHANDAK (2021A7PS3190H).....                          | 174 |
| PS-II STATION: DEZERV INVESTMENTS PVT. LTD , BBANGALORE, BENGALURU .....    | 176 |
| FACULTY NAME: K VENKATASUBRAMANIAN. ....                                    | 176 |
| STUDENT NAME: SUPREETH M.K. (2020B5A70596P).....                            | 176 |
| Details of Papers/patents : - .....                                         | 176 |
| PS-II STATION : DEZERV INVESTMENTS PVT. LTD, BANGALORE .....                | 176 |
| FACULTY NAME: K VENKATASUBRAMANIAN. ....                                    | 176 |
| STUDENT NAME: YASH SANGRAM BARGE. (2021A7PS0006P) .....                     | 176 |
| PS-II STATION : DEZERV INVESTMENTS PVT. LTD , BANGALORE ,BENGALURU .....    | 177 |
| FACULTY NAME: K VENKATASUBRAMANIAN . ....                                   | 177 |
| STUDENT NAME: LAKSHYA VIJAY (2021A7PS2566G).....                            | 177 |
| Details of Papers/patents : - .....                                         | 177 |
| PS-II STATION: DIGIWOKMEDIA, VISAKHAPATNAM.....                             | 178 |
| FACULTY NAME: KRANTHI KUMAR PALAVALASA.....                                 | 178 |
| STUDENT NAME: SANSKRITI SHARMA (2020B4A42180H).....                         | 178 |
| PS-II STATION: DIVGI TORQ TRANSFER SYSTEMS LTD. SHIRWAL,PUNE ,SATARA.....   | 179 |
| FACULTY NAME: RAVI SHRIKRISHNA REOSEKAR .....                               | 179 |
| STUDENT NAME: ADWAITH K (2023H1410108H).....                                | 179 |
| PS-II STATION : DIVGI TORQTRANSFER SYSTEMS PVT. LTD. SIRSI, KARNATAKA ..... | 179 |

|                                                                |     |
|----------------------------------------------------------------|-----|
| FACULTY NAME: RAVI SHRIKRISHNA REOSEKAR .....                  | 179 |
| STUDENT NAME: MANISH LALCHANDANI (2023H1410107P) .....         | 179 |
| PS-II STATION : DRUVA DATA SOLUTIONS PVT. LTD , PUNE .....     | 180 |
| FACULTY NAME: CHETANA ANOOP GAVANKAR .....                     | 180 |
| STUDENT NAME: ISHA RUNTHALA (2023H1030067G) .....              | 180 |
| PS-II STATION : E6DATA,BENGALURU .....                         | 181 |
| FACULTY NAME: SRINATH R.NAIDU .....                            | 181 |
| STUDENT NAME: YASH RAJESH BHISIKAR (2021A7PS0483G).....        | 181 |
| PS-II Project Title: N/A .....                                 | 181 |
| PS-II STATION : EIGHTFOLD AI INDIA PVT LTD, BENGALURU .....    | 182 |
| FACULTY NAME: FEBIN A VAHAB .....                              | 182 |
| STUDENT NAME: KUMARASAMY CHELLIAH (2021A7PS0096H) .....        | 182 |
| Details of Papers/patents : NA .....                           | 182 |
| PS-II STATION : EIGHTFOLD AI INDIA PVT LTD, BENGALURU .....    | 182 |
| FACULTY NAME: FEBIN A VAHAB .....                              | 182 |
| STUDENT NAME: VASHISTH CHOUDHARI (2021A7PS1989H) .....         | 182 |
| PS-II STATION : EIGHTFOLD AI INDIA PVT. LTD.,NOIDA ,NOIDA..... | 183 |
| FACULTY NAME: FEBIN A VAHAB .....                              | 183 |
| STUDENT NAME: MEET CHIRAG PATEL (2021A7PS2692H).....           | 183 |
| PS-II STATION : ELECTRONIC ARTS, INDIA ,HYDERABAD .....        | 184 |
| FACULTY NAME: JYOTSANA GROVER .....                            | 184 |
| STUDENT NAME: TANISH GOTTIMUKKALA (2021A7PS0047H).....         | 184 |
| PS-II STATION : ELECTRONIC ARTS, INDIA ,HYDERABAD .....        | 185 |
| FACULTY NAME: JYOTSANA GROVER .....                            | 185 |
| STUDENT NAME: GNANA PRANEETH NERIYANURI (2021A7PS0263H).....   | 185 |
| Details of Papers/patents : - .....                            | 185 |
| PS-II STATION : ELECTRONIC ARTS, INDIA ,HYDERABAD .....        | 185 |
| FACULTY NAME: JYOTSANA GROVER .....                            | 185 |
| STUDENT NAME: VANSH RASTOGI (2021A7PS0407H) .....              | 185 |
| PS-II STATION : ELECTRONIC ARTS, INDIA ,HYDERABAD .....        | 186 |
| FACULTY NAME: JYOTSANA GROVER .....                            | 186 |
| STUDENT NAME: NISCHITH P (2021A7PS3220H).....                  | 186 |
| PS-II STATION : ELI LILLY, BENGALURU.....                      | 187 |
| FACULTY NAME: BHARATHI R .....                                 | 187 |
| STUDENT NAME: PRAVEEN CHOUDHARY D (2023H1460207P).....         | 187 |
| PS-II STATION : ERNST & YOUNG LLP, GURUGRAM .....              | 188 |



|                                                           |     |
|-----------------------------------------------------------|-----|
| FACULTY NAME: GAURAV NAGPAL .                             | 188 |
| STUDENT NAME: VED DESHMUKH (2020B3A41183H)                | 188 |
| PS-II STATION : ERP-BITS, HYDERABAD.                      | 188 |
| FACULTY NAME: ANJANI SRIKANTH KOKA                        | 188 |
| STUDENT NAME: PRAVEEN SINGH . (2021B5PS2064P)             | 188 |
| PS-II STATION : ERP-BITS, HYDERABAD.                      | 190 |
| FACULTY NAME: ANJANI SRIKANTH KOKA                        | 190 |
| STUDENT NAME: MS. JAYSHREE . (2021D2PS2075P)              | 190 |
| PS-II STATION : ESRI INDIA TECHNOLOGIES PVT.LTD., ,NOIDA  | 191 |
| FACULTY NAME: NEHA VINAYAK                                | 191 |
| STUDENT NAME: PULKIT TYAGI (2023H1540853P)                | 191 |
| PS-II STATION : EUREKA FORBES LTD - BENGALURU.            | 192 |
| FACULTY NAME: JYOTSANA GROVER                             | 192 |
| STUDENT NAME: ARYAN VATS (2020B2A11961G)                  | 192 |
| PS-II STATION : EUREKA FORBES LTD - MUMBAI ,MUMBAI.       | 193 |
| FACULTY NAME: JYOTSANA GROVER                             | 193 |
| STUDENT NAME: AKSHAT SHARMA (2020B5A42373H)               | 193 |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU | 194 |
| FACULTY NAME: VINEET KUMAR GARG .                         | 194 |
| STUDENT NAME: NIKHIL AGARWAL (2020B2A71611P)              | 194 |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU | 195 |
| FACULTY NAME: VINEET KUMAR GARG .                         | 195 |
| STUDENT NAME: KUNAL BANSAL (2020B2A72456H)                | 195 |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU | 196 |
| FACULTY NAME: VINEET KUMAR GARG .                         | 196 |
| STUDENT NAME: ASHRAY KASHYAP (2020B3A70494G)              | 196 |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU | 197 |
| FACULTY NAME: VINEET KUMAR GARG .                         | 197 |
| STUDENT NAME: VAIDYA SAAHIR JITENDRA (2020B3A71142G)      | 197 |
| Details of Papers/patents : None                          | 197 |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU | 198 |
| FACULTY NAME: VINEET KUMAR GARG .                         | 198 |
| STUDENT NAME: GUDEPU RAJESWARI ANANYA . (2021A3PS2642P)   | 198 |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU | 199 |
| FACULTY NAME: VINEET KUMAR GARG .                         | 199 |
| STUDENT NAME: SHRESTHA SAXENA (2021A3PS2980H)             | 199 |

|                                                                        |            |
|------------------------------------------------------------------------|------------|
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....        | 200        |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 200        |
| STUDENT NAME: VAMSI KRISHNA GATTUPALLI (2021A7PS0040H) .....           | 200        |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....        | 201        |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 201        |
| STUDENT NAME: POOJAN MEHTA (2021A7PS0093H).....                        | 201        |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....        | 202        |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 202        |
| STUDENT NAME: ASEEM CHIB . (2021A7PS0466P).....                        | 202        |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....        | 203        |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 203        |
| STUDENT NAME: YASHWARDHAN SINGH . (2021A7PS2219P) .....                | 203        |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT), BENGALURU .....       | 203        |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 203        |
| STUDENT NAME: LAKSHIT SETHI . (2021A7PS2434P) .....                    | 203        |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....        | 204        |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 204        |
| STUDENT NAME: PRATIK PATIL (2021A7PS3111H).....                        | 204        |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....        | 205        |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 205        |
| STUDENT NAME: ANKUR LHILA . (2021AAPS0178P).....                       | 205        |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....        | 206        |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 206        |
| STUDENT NAME: VENKAT PRANAVA TEJA SAMAVEDAM (2021AAPS0593H).....       | 206        |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT), BENGALURU .....       | 207        |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 207        |
| STUDENT NAME: YATHARTH NANDA (2021AAPS1291G) .....                     | 207        |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....        | 208        |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 208        |
| STUDENT NAME: ANANYA JAIN (2021AAPS2121H).....                         | 208        |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....        | 209        |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 209        |
| STUDENT NAME: ADITHYASHAILENDER UMESH (2021AAPS2220H).....             | 209        |
| <b>PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....</b> | <b>210</b> |
| FACULTY NAME: VINEET KUMAR GARG . .....                                | 210        |
| STUDENT NAME: RAJ PATEL (2021AAPS2882H) .....                          | 210        |

|                                                                                  |     |
|----------------------------------------------------------------------------------|-----|
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....                  | 212 |
| FACULTY NAME: VINEET KUMAR GARG . .....                                          | 212 |
| STUDENT NAME: SAKSHI SINGH (2023H1030046G) .....                                 | 212 |
| PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU .....                  | 213 |
| FACULTY NAME: VINEET KUMAR GARG . .....                                          | 213 |
| STUDENT NAME: SANKET SATISH KALE (2023H1030091P) .....                           | 213 |
| PS-II STATION : FLIPKART INTERNET PVT LTD - BUSINESS ANALYTICS, BENGALURU .....  | 215 |
| FACULTY NAME: RAMESH VENKATRAMAN .....                                           | 215 |
| STUDENT NAME: RISHIT SHARMA (2021A4PS2990H) .....                                | 215 |
| PS-II STATION : FLIPKART INTERNET PVT LTD - BUSINESS DEVELOPMENT, BENGALURU..... | 215 |
| FACULTY NAME: RAMESH VENKATRAMAN .....                                           | 215 |
| STUDENT NAME: GARGI MISHRA (2021A1PS2804G).....                                  | 215 |
| PS-II STATION : FLIPKART INTERNET PVT LTD - DATA ENGINEERING, BENGALURU.....     | 217 |
| FACULTY NAME: VINEET KUMAR GARG . .....                                          | 217 |
| STUDENT NAME: KANIKA GARG . (2020B2A30654P).....                                 | 217 |
| PS-II STATION : FLIPKART INTERNET PVT LTD - DATA ENGINEERING, BENGALURU.....     | 218 |
| FACULTY NAME: VINEET KUMAR GARG . .....                                          | 218 |
| STUDENT NAME: NIKHIL DHANARAJ (2021A7PS0427H).....                               | 218 |
| PS-II STATION : FLIPKART INTERNET PVT LTD - UI TEAM ,BENGALURU .....             | 219 |
| FACULTY NAME: VINEET KUMAR GARG . .....                                          | 219 |
| STUDENT NAME: BAGADIA SMIT RAMYAVADAN (2021A7PS2406G) .....                      | 219 |
| PS-II STATION : FLIPKART INTERNET PVT LTD - UI TEAM ,BENGALURU .....             | 220 |
| FACULTY NAME: VINEET KUMAR GARG . .....                                          | 220 |
| STUDENT NAME: MALLIKA AJMANI . (2021AAPS1488P) .....                             | 220 |
| PS-II STATION : FRANKLIN TEMPLETON - DATA SCIENCE/FINANCE ,HYDERABAD .....       | 221 |
| FACULTY NAME: NIRANJAN SWAIN .....                                               | 221 |
| STUDENT NAME: JEWALIKAR RUDRA SHASHANK (2021A7PS0450P) .....                     | 221 |
| PS-II STATION : GE AEROSPACE ,BENGALURU .....                                    | 222 |
| FACULTY NAME: PARAMESW CHIDAMPARAM . .....                                       | 222 |
| STUDENT NAME: MUPPAVARAPU HARINI (2023H1410099H) .....                           | 222 |
| PS-II STATION : GE VERNOVA ADVANCED, BENGALURU .....                             | 223 |
| FACULTY NAME: SWAPNA S KULKARNI .....                                            | 223 |
| STUDENT NAME: MISHRA ADITI PRABHAT (2023H1060116G).....                          | 223 |
| PS-II STATION : GE VERNOVA ADVANCED, BENGALURU .....                             | 224 |
| FACULTY NAME: SWAPNA S KULKARNI .....                                            | 224 |
| STUDENT NAME: S SREYAS (2023H1060146P) .....                                     | 224 |

|                                                                                    |     |
|------------------------------------------------------------------------------------|-----|
| PS-II STATION : GE VERNOVA ADVANCED, BENGALURU .....                               | 224 |
| FACULTY NAME: SWAPNA S KULKARNI .....                                              | 224 |
| STUDENT NAME: C SHAILESH (2023H1060151P).....                                      | 224 |
| PS-II STATION : GE VERNOVA ADVANCED, BENGALURU .....                               | 225 |
| FACULTY NAME: SWAPNA S KULKARNI .....                                              | 225 |
| STUDENT NAME: NIKHILA VARMA JK (2023H1410101P).....                                | 225 |
| PS-II STATION : GOODERA - ENGINEERING ,BENGALURU .....                             | 226 |
| FACULTY NAME: ASHISH NARANG . .....                                                | 226 |
| STUDENT NAME: RISHI SINHA (2021A3PS2930H).....                                     | 226 |
| PS-II STATION : GOODERA - GTM ,BENGALURU.....                                      | 227 |
| FACULTY NAME: SANDEEP KAYASTHA .....                                               | 227 |
| STUDENT NAME: SOMANI RISHABH MANISH (2020B1A42122G) .....                          | 227 |
| PS-II STATION : GOODERA - PRODUCT ,BENGALURU.....                                  | 228 |
| FACULTY NAME: SANDEEP KAYASTHA .....                                               | 228 |
| STUDENT NAME: ALLA DEDEEPPYA (2020B1A12396H) .....                                 | 228 |
| PS-II STATION : GOODERA - PRODUCT ,BENGALURU.....                                  | 228 |
| FACULTY NAME: SANDEEP KAYASTHA .....                                               | 228 |
| STUDENT NAME: SANKHARVA SHYAM RAMESHBHAI (2021A1PS2563G) .....                     | 228 |
| PS-II STATION : GOODERA - PRODUCT ,BENGALURU.....                                  | 229 |
| FACULTY NAME: SANDEEP KAYASTHA .....                                               | 229 |
| STUDENT NAME: VITTAL ORUGANTI (2021A3PS0778H) .....                                | 229 |
| PS-II STATION : GOOGLE INDIA DEMANDING WARE ENGINEERING ,BENGALURU .....           | 230 |
| FACULTY NAME: SANJAY VIDHYADHARAN .....                                            | 230 |
| STUDENT NAME: PRERNA SINGH (2023H1230193H) .....                                   | 230 |
| PS-II STATION : GOOGLE INDIA SOFTWARE, BENGALURU .....                             | 232 |
| FACULTY NAME: A MICHAEL ALPHONSE .....                                             | 232 |
| STUDENT NAME: VENKATAVIHAN DEVAKI . (2021A7PS0429P) .....                          | 232 |
| PS-II STATION : GRANULES INDIA LTD ,HYDERABAD.....                                 | 233 |
| FACULTY NAME: BHARATHI R .....                                                     | 233 |
| STUDENT NAME: ABHISHEK SHAILESH KARPE (2023H1010018H).....                         | 233 |
| PS-II STATION : GRASIM INDUSTRIES LTD - PULP & FIBRE BUSINESS - CRM, MUMBAI .....  | 234 |
| FACULTY NAME: ARUN MAITY .....                                                     | 234 |
| STUDENT NAME: AJAYKUMAR KASHAPNOOR (2020B2A82121G).....                            | 234 |
| PS-II STATION : GRASIM INDUSTRIES LTD. (CHEMICAL DIVISION) CPW & SBP ,BHARUCH..... | 235 |
| FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE.....                                      | 235 |
| STUDENT NAME: ABEL OOMMEN LUKE (2021A1PS2963G) .....                               | 235 |

|                                                                                      |     |
|--------------------------------------------------------------------------------------|-----|
| PS-II STATION : GRASIM INDUSTRIES LTD. (CHEMICAL DIVISION) ELECTRICAL ,BHARUCH ..... | 237 |
| FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE .....                                       | 237 |
| STUDENT NAME: RISHABH DAGA (2021A3PS3062H) .....                                     | 237 |
| PS-II STATION : GRASIM INDUSTRIES LTD. (CHEMICAL DIVISION) MECHANICAL ,BHARUCH ..... | 237 |
| FACULTYNAME: SANTOSH SOPANRAO KHANDGAVE.....                                         | 237 |
| STUDENT NAME: RUTVIKKUMAR SHAILESHKUMAR TRIVEDI (2023H1410076G).....                 | 237 |
| PS-II STATION : GRAVITI PHARMA ,HYDERABAD.....                                       | 238 |
| FACULTY NAME: BHARATHI R .....                                                       | 238 |
| STUDENT NAME: AKASH S PATTAR (2023H1060155H).....                                    | 238 |
| PS-II STATION: GRAVITI PHARMA ,HYDERABAD .....                                       | 239 |
| FACULTY NAME: BHARATHI R .....                                                       | 239 |
| STUDENT NAME: KAKARAPARTY KUMARA ADITYA (2023H1410110H).....                         | 239 |
| PS-II STATION : GREENFINCH GLOBAL CONSULTING-IT ,JAIPUR.....                         | 239 |
| FACULTY NAME: K VENKATASUBRAMANIAN . .....                                           | 239 |
| STUDENT NAME: KOCHETA PRANAV AMOLKUMAR (2020B4A41859G).....                          | 239 |
| PS-II STATION : GREENFINCH GLOBAL CONSULTING-IT ,JAIPUR.....                         | 240 |
| FACULTY NAME: K VENKATASUBRAMANIAN . .....                                           | 240 |
| STUDENT NAME: SHREYASH PATEL (2020B5A71157G) .....                                   | 240 |
| PS-II STATION : GREENKO GROUP ,HYDERABAD .....                                       | 241 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA . .....                                        | 241 |
| STUDENT NAME: VISHNU PRIYA (2023H1430028H).....                                      | 241 |
| PS-II STATION : GUARDIAN LIFE INSURANCE COMPANY, CHENNAI ,CHENNAI.....               | 242 |
| FACULTY NAME: RAMESH VENKATRAMAN .....                                               | 242 |
| STUDENT NAME: ROHIT YALAVARTHY (2021A8PS2294H).....                                  | 242 |
| PS-II STATION: GUARDIAN LIFE INSURANCE COMPANY, GURGAON .....                        | 243 |
| FACULTY NAME: RAMESH VENKATRAMAN .....                                               | 243 |
| STUDENT NAME: KULKARNI ANISH SHAILESH (2020B1A42416H) .....                          | 243 |
| PS-II STATION : GUARDIAN LIFE INSURANCE COMPANY, GURGAON .....                       | 244 |
| FACULTY NAME: RAMESH VENKATRAMAN .....                                               | 244 |
| STUDENT NAME: CHINMAY ANAND (2020B3A70776H).....                                     | 244 |
| PS-II STATION : GUARDIAN LIFE INSURANCE COMPANY, GURGAON .....                       | 245 |
| FACULTY NAME: RAMESH VENKATRAMAN .....                                               | 245 |
| STUDENT NAME: AAYUSH KUMAR SINGH (2021A7PS0430H) .....                               | 245 |
| PS-II STATION : HARMAN DTS ,BENGALURU.....                                           | 246 |
| FACULTY NAME: SHREYAS SURESH RAO .....                                               | 246 |
| STUDENT NAME: SHIKHAR SRIVASTAVA . (2020B1A40656P).....                              | 246 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| PS-II STATION : HARMAN DTS ,BENGALURU .....                     | 246 |
| FACULTY NAME: SHREYAS SURESH RAO .....                          | 246 |
| STUDENT NAME: SRIBHASHYAM SESA SAI SRIKAR (2020B4A40856H) ..... | 246 |
| PS-II STATION : HARNESS.IO ,BENGALURU .....                     | 247 |
| FACULTY NAME: AKANKSHA BHARADWAJ . .....                        | 247 |
| STUDENT NAME: SHASHANK RANA (2021A7PS2671G) .....               | 247 |
| PS-II STATION : HONEYWELL ,GURGAON.....                         | 248 |
| FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE.....                   | 248 |
| STUDENT NAME: PRIYESH TONGARIA (2021A1PS2966G) .....            | 248 |
| PS-II STATION : HSBC - ANALYST ,GURGAON .....                   | 248 |
| FACULTY NAME: SIDHARTH MISHRA .....                             | 248 |
| STUDENT NAME: DHURUV TULI (2020B2A82042G).....                  | 248 |
| PS-II STATION : HSBC - ANALYST ,GURGAON .....                   | 249 |
| FACULTY NAME: SIDHARTH MISHRA .....                             | 249 |
| STUDENT NAME: SAHITHI GOPARAJU (2020B3A40647H) .....            | 249 |
| PS-II STATION : HSBC - ANALYST ,GURGAON .....                   | 249 |
| FACULTY NAME: SIDHARTH MISHRA .....                             | 249 |
| STUDENT NAME: SAKAR HIRDE (2021A3PS3203H).....                  | 249 |
| PS-II STATION : HSBC - ANALYST ,GURGAON .....                   | 251 |
| FACULTY NAME: SIDHARTH MISHRA .....                             | 251 |
| STUDENT NAME: YUVRAJ PRATHAM (2021A8PS3122H) .....              | 251 |
| PS-II STATION : HSBC - ANALYST ,GURGAON .....                   | 252 |
| FACULTY NAME: SIDHARTH MISHRA .....                             | 252 |
| STUDENT NAME: ABHISHEK KUMAR (2023H1540822P).....               | 252 |
| PS-II STATION : HSBC - ANALYST ,GURGAON .....                   | 253 |
| FACULTY NAME: SIDHARTH MISHRA .....                             | 253 |
| STUDENT NAME: SHUBHANGI AGGARWAL (2023H1540823P) .....          | 253 |
| PS-II STATION : HSBC - ANALYST ,GURGAON .....                   | 254 |
| FACULTY NAME: SIDHARTH MISHRA .....                             | 254 |
| STUDENT NAME: KARTHIK THILAKAN E (2023H1540862P) .....          | 254 |
| PS-II STATION : HSBC - ANALYST ,GURGAON .....                   | 255 |
| FACULTY NAME: SIDHARTH MISHRA .....                             | 255 |
| STUDENT NAME: M V S SRI SATHVIKA (2023H1540864P) .....          | 255 |
| PS-II STATION : IBM ,BENGALURU .....                            | 256 |
| FACULTY NAME: REDDY RANI VANGIMALLA .....                       | 256 |
| STUDENT NAME: RACHOITA DAS . (2021A7PS2002P) .....              | 256 |

|                                                                  |     |
|------------------------------------------------------------------|-----|
| PS-II STATION : IBM ,BENGALURU .....                             | 257 |
| FACULTY NAME: REDDY RANI VANGIMALLA .....                        | 257 |
| STUDENT NAME: SANSHRAV ARORA . (2021A7PS2690P) .....             | 257 |
| PS-II STATION : IBM ,BENGALURU .....                             | 258 |
| FACULTY NAME: REDDY RANI VANGIMALLA .....                        | 258 |
| STUDENT NAME: ANSHUMAN PANDA (2023H1120183P).....                | 258 |
| PS-II STATION : IBM ,BENGALURU .....                             | 259 |
| FACULTY NAME: REDDY RANI VANGIMALLA .....                        | 259 |
| STUDENT NAME: SHIVENDRA PRATAP (2023H1230178P).....              | 259 |
| PS-II STATION : ICT,NEW DELHI ,NEW DELHI .....                   | 260 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA .....                      | 260 |
| STUDENT NAME: SUMANTA DAS (2023H1300054P) .....                  | 260 |
| PS-II STATION : ICT,NEW DELHI.....                               | 261 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA .....                      | 261 |
| STUDENT NAME: BHUMARAJU SAI VISHNU (2023H1300055P) .....         | 261 |
| PS-II STATION : ICT,NEW DELHI.....                               | 262 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA . .....                    | 262 |
| STUDENT NAME: S MADHESH (2023H1300061P).....                     | 262 |
| PS-II STATION : ICT,NEW DELHI.....                               | 263 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA .....                      | 263 |
| STUDENT NAME: KANDUKURI SIVA BHAGAVAN REDDY (2023H1300062P)..... | 263 |
| PS-II STATION : ICT,NEW DELHI.....                               | 264 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA . .....                    | 264 |
| PS-II STATION : IFB INDUSTRIES,GOA .....                         | 266 |
| FACULTY NAME: PAVAN KUMAR POTDAR .....                           | 266 |
| STUDENT NAME: VIVEK PRAKASH KAUSHIK (2023H1410084G) .....        | 266 |
| PS-II STATION : IFB INDUSTRIES,GOA .....                         | 267 |
| FACULTY NAME: PAVAN KUMAR POTDAR .....                           | 267 |
| STUDENT NAME: BELANI YASH RAJ (2023H1410090G) .....              | 267 |
| PS-II STATION : IMMENSITAS PVT. LTD. (LEMNISK) ,BENGALURU .....  | 269 |
| FACULTY NAME: RAJA VADHANA PRABHAKAR . .....                     | 269 |
| STUDENT NAME: JAHNAVI RISHIKESH (2021A7PS1474G) .....            | 269 |
| PS-II STATION : IMMENSITAS PVT. LTD. (LEMNISK) ,BENGALURU .....  | 270 |
| FACULTY NAME: RAJA VADHANA PRABHAKAR . .....                     | 270 |
| STUDENT NAME: SAKSHAM AUDICHYA (2023H1030070G).....              | 270 |
| PS-II STATION : IMMENSITAS PVT. LTD. (LEMNISK) ,BENGALURU .....  | 272 |

|                                                                                       |     |
|---------------------------------------------------------------------------------------|-----|
| FACULTY NAME: RAJA VADHANA PRABHAKAR .....                                            | 272 |
| STUDENT NAME: SHUBHAM KUMAR (2023H1120191P).....                                      | 272 |
| PS-II STATION : IMPACT SURE TECHNOLOGIES PVT.LTD., - FINANCE ,MUMBAI .....            | 272 |
| FACULTY NAME: BANDI VENKATA PRASAD.....                                               | 272 |
| STUDENT NAME: PRIYANSH JAIN . (2020B3A40877P).....                                    | 272 |
| PS-II STATION : INDIAN INSTITUTE OF PETROLEUM ( IIP ),DEHRADUN ,DEHRADUN.....         | 273 |
| FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE.....                                         | 273 |
| STUDENT NAME: ATHARVA SHRIRAM GHASAS (2021A1PS2802G) .....                            | 273 |
| PS-II STATION : INDIAN INSTITUTE OF PETROLEUM ( IIP ),DEHRADUN .....                  | 274 |
| FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE.....                                         | 274 |
| STUDENT NAME: KARTHIK KRISHNA KAKKATTEL . (2021A4PS1325P) .....                       | 274 |
| PS-II STATION : INDIAN INSTITUTE OF PETROLEUM ( IIP ),DEHRADUN .....                  | 276 |
| FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE.....                                         | 276 |
| STUDENT NAME: M K ADITHYAKRISHNAN (2023H1010014P).....                                | 276 |
| PS-II STATION : INDUS INSIGHTS AND ANALYTICAL SERVICES PVT LTD, GURUGRAM .....        | 277 |
| FACULTY NAME: GAURAV NAGPAL . .....                                                   | 277 |
| STUDENT NAME: ARYAAN PARIDA (2020B1A40833H) .....                                     | 277 |
| PS-II STATION : INDUS INSIGHTS AND ANALYTICAL SERVICES PVT LTD, GURUGRAM .....        | 278 |
| FACULTY NAME: GAURAV NAGPAL . .....                                                   | 278 |
| STUDENT NAME: BISHNU R (2020B4A11934H) .....                                          | 278 |
| PS-II STATION: INDUS INSIGHTS AND ANALYTICAL SERVICES PVT LTD, GURUGRAM.....          | 279 |
| FACULTY NAME: GAURAV NAGPAL . .....                                                   | 279 |
| STUDENT NAME: PARAM GUPTA . (2021A3PS0236P) .....                                     | 279 |
| PS-II STATION : INFINEON - ELECTRONICS ,BENGALURU .....                               | 280 |
| FACULTY NAME: SHREE PRASAD M .....                                                    | 280 |
| STUDENT NAME: SHUBHANGA GAUTAM (2021A3PS1284H) .....                                  | 280 |
| PS-II STATION : INFINEON- SUPPLY CHAIN ,BENGALURU .....                               | 280 |
| FACULTY NAME: SHREE PRASAD M .....                                                    | 280 |
| STUDENT NAME: AMAL KRISHNA R (2023H1410086G).....                                     | 280 |
| PS-II STATION : INMOBI TECHNOLOGIES PVT LTD, GLANCE DIGITAL EXPERIENCE PVT.LTD.,..... | 282 |
| ,BENGALURU.....                                                                       | 282 |
| FACULTY NAME: SEETHA PARAMESWARAN .....                                               | 282 |
| STUDENT NAME: DIVYAM SRIVASTAVA (2020B2A82103G) .....                                 | 282 |
| PS-II STATION: INMOBI TECHNOLOGIES PVT LTD, GLANCE DIGITAL EXPERIENCE PVT.LTD., ..... | 283 |
| ,BENGALURU.....                                                                       | 283 |
| FACULTY NAME: SEETHA PARAMESWARAN . .....                                             | 283 |



|                                                                                       |     |
|---------------------------------------------------------------------------------------|-----|
| STUDENT NAME: SOUMYA BIRLA (2020B5A82390H) .....                                      | 283 |
| PS-II STATION : INMOBI TECHNOLOGIES PVT LTD, GLANCE DIGITAL EXPERIENCE PVT.LTD.,..... | 284 |
| ,BENGALURU.....                                                                       | 284 |
| FACULTY NAME: SEETHA PARAMESWARAN .....                                               | 284 |
| STUDENT NAME: SRI VISHNU PATCHAVA (2021AAPS0639H).....                                | 284 |
| PS-II STATION : INTEGRATED ACTIVE MONITORING PVT. LTD.,PUNE.....                      | 285 |
| FACULTY NAME: MANOJ SUBHASH KAKADE .....                                              | 285 |
| STUDENT NAME: ISHAN AJAY GOKHALE (2021A3PS1536G).....                                 | 285 |
| PS-II STATION : INTEL, BENGALURU.....                                                 | 286 |
| FACULTY NAME: SWAPNA S KULKARNI .....                                                 | 286 |
| STUDENT NAME: S NIHARIKA (2020B1A82034G) .....                                        | 286 |
| PS-II STATION : INTEL,BENGALURU .....                                                 | 287 |
| FACULTY NAME: SWAPNA S KULKARNI .....                                                 | 287 |
| STUDENT NAME: DIVITH MAHAJAN (2020B3A31513G) .....                                    | 287 |
| PS-II STATION : INTEL,BENGALURU .....                                                 | 288 |
| FACULTY NAME: SWAPNA S KULKARNI .....                                                 | 288 |
| STUDENT NAME: MAANYA AGARWAL . (2020B3A81427P).....                                   | 288 |
| PS-II STATION : INTEL,BENGALURU .....                                                 | 288 |
| FACULTY NAME: SWAPNA S KULKARNI .....                                                 | 288 |
| STUDENT NAME: GHAG PRANAV PRADEEP (2020B4A32060G).....                                | 288 |
| PS-II STATION : INTEL,BENGALURU .....                                                 | 289 |
| FACULTY NAME: SWAPNA S KULKARNI .....                                                 | 289 |
| STUDENT NAME: VOBILISSETTI BHARATHA SAI GOPAL PRANAY (2020B4AA0927H) .....            | 289 |
| PS-II STATION : INTEL,BENGALURU .....                                                 | 290 |
| FACULTY NAME: SWAPNA S KULKARNI .....                                                 | 290 |
| STUDENT NAME: SAI KARTHIK C (2020B5A70762H).....                                      | 290 |
| PS-II STATION : INTERNATIONAL AEROSPACE MANUFACTURING PVT. LTD, BENGALURU.....        | 290 |
| FACULTY NAME: SRINIVAS KOTA .....                                                     | 290 |
| STUDENT NAME: VASUMAN MALVIYA . (2021A4PS1364P).....                                  | 290 |
| PS-II STATION : INTERNATIONAL AEROSPACE MANUFACTURING PVT. LTD, BENGALURU.....        | 292 |
| FACULTY NAME: SRINIVAS KOTA .....                                                     | 292 |
| STUDENT NAME: VEDANT SALIL RANDIVE (2021A4PS2895G).....                               | 292 |
| PS-II STATION : INTUIT INDIA,BENGALURU ,BENGALURU .....                               | 293 |
| FACULTY NAME: FEBIN A VAHAB .....                                                     | 293 |
| STUDENT NAME: PATHIK SHAH (2021A7PS2085G) .....                                       | 293 |
| PS-II STATION : ITC LIMITED, PSPD - FINANCIAL DATA ANALYSIS, HYDERABAD .....          | 294 |

|                                                                                                                    |     |
|--------------------------------------------------------------------------------------------------------------------|-----|
| FACULTY NAME: PANCHAGNULA JAYAPRAKASH SHARMA .....                                                                 | 294 |
| STUDENT NAME: SHAURYA BANSAL (2021A1PS2957G).....                                                                  | 294 |
| PS-II STATION : IUDX PROGRAM UNIT, INDIAN INSTITUTE OF SCIENCE - DATA KAVERI,BENGALURU ,BENGALURU .....            | 295 |
| FACULTY NAME: A REKHA .....                                                                                        | 295 |
| STUDENT NAME: KEEGAN LOUIS MORAES (2020B4A81830G).....                                                             | 295 |
| PS-II STATION : JIVOX CORPORATION,BENGALURU ,.....                                                                 | 296 |
| FACULTY NAME: PREETHI N. G .....                                                                                   | 296 |
| STUDENT NAME: KRISHNA DEVARAJ (2020B2A31934G).....                                                                 | 296 |
| PS-II STATION : JODO ,BENGALURU .....                                                                              | 296 |
| FACULTY NAME: ARINDAM ROY .....                                                                                    | 296 |
| STUDENT NAME: ROHIT TULSI PADALA (2021AAPS1896H).....                                                              | 296 |
| PS-II STATION : JP MORGAN CHASE-QUANT ,MUMBAI .....                                                                | 298 |
| FACULTY NAME: UMA NAGARAJAN . .....                                                                                | 298 |
| STUDENT NAME: SWETHA KRISHNA SRIRAM (2020B3A71252H).....                                                           | 298 |
| PS-II STATION : JPMC - G&C - CIO, TREASURY & CORPORATE (CTC) RISK TEAM - CREDIT RISK/ LIQUIDITY RISK ,MUMBAI ..... | 298 |
| FACULTY NAME: BHAMIDIPATI VAISHALI .....                                                                           | 298 |
| STUDENT NAME: SEHAJPAL SINGH SARAO . (2021A4PS1360P).....                                                          | 298 |
| Tool used (Development tools - H/w, S/w) : Excel .....                                                             | 299 |
| PS-II STATION : JPMC - GR&C WCR PORTFOLIO ANALYTICS- ANALYTICS STRATEGY ,MUMBAI .....                              | 299 |
| FACULTY NAME: BHAMIDIPATI VAISHALI .....                                                                           | 299 |
| STUDENT NAME: NANDAN GOUD B . (2020B1A11898P).....                                                                 | 299 |
| PS-II STATION : JPMC - GR&C WHOLESALE CREDIT RISK - PRODUCT OWNER TEAM ,MUMBAI .....                               | 300 |
| FACULTY NAME: BHAMIDIPATI VAISHALI .....                                                                           | 300 |
| STUDENT NAME: S ANANTHA NARAYANAN (2020B5A40985H).....                                                             | 300 |
| PS-II STATION : JPMC CIB R&A – BANKING ,MUMBAI.....                                                                | 301 |
| FACULTY NAME: UMA NAGARAJAN . .....                                                                                | 301 |
| STUDENT NAME: VINEET GHOSH (2021A7PS2644G).....                                                                    | 301 |
| PS-II STATION : JPMC CIB R&A – BANKING ,MUMBAI.....                                                                | 302 |
| FACULTY NAME: UMA NAGARAJAN . .....                                                                                | 302 |
| STUDENT NAME: UJJWAL KHARANGAR (2021AAPS2125H).....                                                                | 302 |
| PS-II STATION : JPMC CIB RESEARCH & ANALYTICS MARKETS - CCAR & SALES ,MUMBAI .....                                 | 303 |
| FACULTY NAME: UMA NAGARAJAN . .....                                                                                | 303 |
| STUDENT NAME: KAVIN AGGARWAL . (2021A4PS0814P) .....                                                               | 303 |
| PS-II STATION : JPMC, MODEL RISK AND GOVERNANCE REVIEW ,MUMBAI .....                                               | 304 |

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| FACULTY NAME: BHAMIDIPATI VAISHALI .....                                | 304 |
| STUDENT NAME: AAYUSHI VIVEK SAH (2020B4A32238H) .....                   | 304 |
| PS-II STATION : KPMG- GBS ,GURGAON.....                                 | 305 |
| FACULTY NAME: PARAG RASTOGI .....                                       | 305 |
| STUDENT NAME: VEDANG CHOUDHARY (2020ABPS1051P) .....                    | 305 |
| PS-II STATION : KPMG- GBS ,GURGAON.....                                 | 306 |
| FACULTY NAME: PARAG RASTOGI .....                                       | 306 |
| STUDENT NAME: MANAS MANMOHAN KALYANPAD . (2020B1A10617P).....           | 306 |
| PS-II STATION : KPMG- GBS ,GURGAON.....                                 | 307 |
| FACULTY NAME: PARAG RASTOGI .....                                       | 307 |
| STUDENT NAME: PRAKHAR CHAUDHARY (2020B3A11034G).....                    | 307 |
| PS-II STATION : KPMG- GBS ,GURGAON.....                                 | 307 |
| FACULTY NAME: PARAG RASTOGI .....                                       | 307 |
| STUDENT NAME: KUHU AGRAWAL (2021A1PS3059G).....                         | 307 |
| PS-II STATION : LOKAL APP ,BENGALURU .....                              | 308 |
| FACULTY NAME: SHREYAS SURESH RAO .....                                  | 308 |
| STUDENT NAME: VEERA TEJA B (2023H1540818P) .....                        | 308 |
| PS-II STATION : MAHINDRA ACCELO LTD- MUMBAI (WORLI) ,MUMBAI .....       | 309 |
| FACULTY NAME: PAVAN KUMAR POTDAR . .....                                | 309 |
| STUDENT NAME: SHRAWANI MILIND VAIDYA (2021A4PS2021G).....               | 309 |
| PS-II STATION : MAHINDRA ACCELO LTD- MUMBAI (WORLI) ,MUMBAI .....       | 310 |
| FACULTY NAME: PAVAN KUMAR POTDAR . .....                                | 310 |
| STUDENT NAME: DIWAN ADNAN ZAFAR ALAM (2023H1420145H) .....              | 310 |
| PS-II STATION : MARVELL TECHNOLOGY ,BENGALURU .....                     | 311 |
| FACULTY NAME: MONALI TUSHAR MAVANI . .....                              | 311 |
| STUDENT NAME: PITTA VENKATESHWARA SAI KIRAN REDDY (2023H1400114H) ..... | 311 |
| PS-II STATION : MARVELL TECHNOLOGY ,BENGALURU .....                     | 312 |
| FACULTY NAME: MONALI TUSHAR MAVANI . .....                              | 312 |
| STUDENT NAME: SMRUTI BOHRA (2023H1400120P) .....                        | 312 |
| PS-II STATION : MARVELL TECHNOLOGY ,BENGALURU .....                     | 313 |
| FACULTY NAME: MONALI TUSHAR MAVANI . .....                              | 313 |
| STUDENT NAME: MADHUR VARSHNEY (2023H1400130P).....                      | 313 |
| PS-II STATION : MATHWORKS INDIA PVT.LTD., , BENGALURU ,BENGALURU .....  | 314 |
| FACULTY NAME: A MICHAEL ALPHONSE .....                                  | 314 |
| STUDENT NAME: HARSHAVARDHAN GALI (2021AAPS0691H) .....                  | 314 |
| PS-II STATION : MATHWORKS INDIA PVT.LTD., , HYDERABAD.....              | 315 |

|                                                                            |     |
|----------------------------------------------------------------------------|-----|
| FACULTY NAME: A MICHAEL ALPHONSE .....                                     | 315 |
| STUDENT NAME: ISHAAN KAPOOR (2021A7PS2091G) .....                          | 315 |
| PS-II STATION : MATHWORKS INDIA PVT.LTD., , HYDERABAD.....                 | 316 |
| FACULTY NAME: A MICHAEL ALPHONSE .....                                     | 316 |
| STUDENT NAME: ABHIRAM AJITH (2021A7PS2525G) .....                          | 316 |
| PS-II STATION : MBB LABS - PRODUCT EFFICIENCY ENGINEERING ,BENGALURU ..... | 317 |
| FACULTY NAME: PRAVIN YASHWANT PAWAR . .....                                | 317 |
| STUDENT NAME: AADITYA (2023H1540815P) .....                                | 317 |
| PS-II STATION : MBB LABS PVT.LTD., (MAYBANK),BENGALURU ,BENGALURU .....    | 318 |
| FACULTY NAME: PRAVIN YASHWANT PAWAR . .....                                | 318 |
| STUDENT NAME: MANCHALA PRASHANTH KUMAR (2020B2A32394H) .....               | 318 |
| PS-II STATION : MBB LABS PVT.LTD., (MAYBANK),BENGALURU ,BENGALURU .....    | 319 |
| FACULTY NAME: PRAVIN YASHWANT PAWAR . .....                                | 319 |
| STUDENT NAME: SUBHRANSHU SEKHAR PANDA . (2020B4A41988P) .....              | 319 |
| PS-II STATION : MCCAIN FOODS (INDIA) PVT. LTD. ,GURGAON .....              | 321 |
| FACULTY NAME: HARISH KUMAR AGGARWAL .....                                  | 321 |
| STUDENT NAME: PRACHEE SHARMA (2021A3PS2867H) .....                         | 321 |
| PS-II STATION : MCCAIN FOODS (INDIA) PVT. LTD. ,GURGAON .....              | 321 |
| FACULTY NAME: HARISH KUMAR AGGARWAL .....                                  | 321 |
| STUDENT NAME: AMEY PRASHANT PATIL (2021A7PS2740G) .....                    | 321 |
| PS-II STATION : MEDIATEK BANGALORE PVT LTD ,BENGALURU .....                | 323 |
| FACULTY NAME: A REKHA .....                                                | 323 |
| STUDENT NAME: RITWIK BASAK (2023H1030079P) .....                           | 323 |
| PS-II STATION : MEDIATEK BANGALORE PVT LTD ,BENGALURU .....                | 324 |
| FACULTY NAME: A REKHA .....                                                | 324 |
| STUDENT NAME: MALINA SAHOO (2023H1030089H) .....                           | 324 |
| PS-II STATION : MEDIATEK BANGALORE PVT LTD ,BENGALURU .....                | 324 |
| FACULTY NAME: A REKHA .....                                                | 324 |
| STUDENT NAME: T V ABHINAV VISWANAATH (2023H1120182P) .....                 | 324 |
| PS-II STATION : MEDIATEK BANGALORE PVT LTD ,BENGALURU .....                | 325 |
| FACULTY NAME: A REKHA .....                                                | 325 |
| STUDENT NAME: PRIYANSH DESHMUKH (2023H1120193P) .....                      | 325 |
| PS-II STATION : MEESHO - APM ,BENGALURU .....                              | 326 |
| FACULTYNAME: SANDEEP KAYASTHA . .....                                      | 326 |
| STUDENT NAME: SAAKSHI ADIGA S (2020B1A41930G) .....                        | 326 |
| PS-II STATION : MEESHO - APM ,BENGALURU .....                              | 327 |

|                                                               |     |
|---------------------------------------------------------------|-----|
| FACULTY NAME: SANDEEP KAYASTHA .....                          | 327 |
| STUDENT NAME: RAASHI VANWANI . (2020B2A30637P).....           | 327 |
| PS-II STATION : MEESHO - APM ,BENGALURU .....                 | 328 |
| FACULTY NAME: SANDEEP KAYASTHA .....                          | 328 |
| STUDENT NAME: DHRUV BANSAL . (2020B2A41401P).....             | 328 |
| PS-II STATION : MEESHO - APM ,BENGALURU .....                 | 329 |
| FACULTY NAME: SANDEEP KAYASTHA .....                          | 329 |
| STUDENT NAME: ARYAN SINGH . (2020B5A11665P).....              | 329 |
| PS-II STATION : MEESHO - APM ,BENGALURU .....                 | 330 |
| FACULTY NAME: SANDEEP KAYASTHA .....                          | 330 |
| STUDENT NAME: MUKUL SHARMA . (2020B5A40628P).....             | 330 |
| PS-II STATION : MEESHO - APM ,BENGALURU .....                 | 332 |
| FACULTY NAME: SANDEEP KAYASTHA .....                          | 332 |
| STUDENT NAME: PRANETA MAHAWAR . (2021A4PS1432P).....          | 332 |
| PS-II STATION : MEESHO ,BENGALURU .....                       | 333 |
| FACULTY NAME: SANDEEP KAYASTHA . .....                        | 333 |
| STUDENT NAME: SHREYASH SINGH . (2020B1A11906P) .....          | 333 |
| PS-II STATION : MEESHO ,BENGALURU .....                       | 334 |
| FACULTY NAME: SANDEEP KAYASTHA . .....                        | 334 |
| STUDENT NAME: DEVARSH KUMBHARE (2021A3PS2975G).....           | 334 |
| PS-II STATION : MEESHO ,BENGALURU .....                       | 335 |
| FACULTY NAME: SANDEEP KAYASTHA .....                          | 335 |
| STUDENT NAME: VITHALANI MEET AMITKUMAR . (2021A7PS0555P)..... | 335 |
| PS-II STATION : MEESHO ,BENGALURU .....                       | 336 |
| FACULTY NAME: SANDEEP KAYASTHA .....                          | 336 |
| STUDENT NAME: SHARAD ARORA (2021A7PS1427G) .....              | 336 |
| PS-II STATION : MEESHO ,BENGALURU .....                       | 337 |
| FACULTY NAME: SANDEEP KAYASTHA .....                          | 337 |
| STUDENT NAME: SANIYA MATHUR (2021A7PS2553G) .....             | 337 |
| PS-II STATION : MEESHO ,BENGALURU .....                       | 338 |
| FACULTY NAME: SANDEEP KAYASTHA .....                          | 338 |
| STUDENT NAME: PRITHVINANDAN KUNJITHAYA (2021A7PS3051G) .....  | 338 |
| PS-II STATION : MEESHO ,BENGALURU .....                       | 339 |
| FACULTY NAME: SANDEEP KAYASTHA .....                          | 339 |
| STUDENT NAME: SAMARTH NASNODKAR (2021A7PS3204H).....          | 339 |
| PS-II STATION : MELSS ,CHENNAI.....                           | 341 |

|                                                                               |     |
|-------------------------------------------------------------------------------|-----|
| FACULTY NAME: SUPARNA CHAKRABORTY .....                                       | 341 |
| STUDENT NAME: SAKETH VENKAT KURADA (2021AAPS1520H).....                       | 341 |
| PS-II STATION : MICRON TECHNOLOGY- FD, HYDERABAD ,HYDERABAD .....             | 342 |
| FACULTY NAME: PAWAN SHARMA .....                                              | 342 |
| STUDENT NAME: PRIYANKA RANJAN (2021A3PS2735H).....                            | 342 |
| PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD .....                        | 342 |
| FACULTY NAME: SINDHU S . .....                                                | 342 |
| STUDENT NAME: L P SHREYA (2023H1030061G).....                                 | 342 |
| PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD .....                        | 343 |
| FACULTY NAME: SINDHU S . .....                                                | 343 |
| STUDENT NAME: MAYANK YADAV (2023H1240058H) .....                              | 343 |
| PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD .....                        | 344 |
| FACULTY NAME: SINDHU S . .....                                                | 344 |
| STUDENT NAME: VADDI LAKSHMI SATYA SAI SAROJINI (2023H1240065H).....           | 344 |
| PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD .....                        | 345 |
| FACULTY NAME: SINDHU S . .....                                                | 345 |
| STUDENT NAME: RAJEEV NANDAN SINGH (2023H1240068H) .....                       | 345 |
| PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD .....                        | 346 |
| FACULTY NAME: SINDHU S . .....                                                | 346 |
| STUDENT NAME: PRATHAM SHARMA (2023H1240068P) .....                            | 346 |
| PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD ,HYDERABAD .....             | 347 |
| FACULTY NAME: SINDHU S . .....                                                | 347 |
| STUDENT NAME: VEMPATI SRIDHAR (2023H1400100G).....                            | 347 |
| PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD ,HYDERABAD .....             | 348 |
| FACULTY NAME: SINDHU S . .....                                                | 348 |
| STUDENT NAME: MARAGANI AVINASH (2023H1400121H).....                           | 348 |
| PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD .....                        | 349 |
| FACULTY NAME: SINDHU S . .....                                                | 349 |
| STUDENT NAME: KUMMETHA DEEPTHI (2023H1400127H) .....                          | 349 |
| PS-II STATION : MITIGATA (ALPHAWAVE TECHNOLOGIES PVT.LTD., ) ,BENGALURU ..... | 349 |
| FACULTY NAME: ARINDAM ROY .....                                               | 349 |
| STUDENT NAME: SUGAM CHAUHAN (2021A4PS2405G).....                              | 349 |
| PS-II STATION : MITRA ROBOT INDIA PVT LTD ,BENGALURU.....                     | 351 |
| FACULTY NAME: SANGEETHA VISWANATHAN .....                                     | 351 |
| STUDENT NAME: KSHITIJ AGGARWAL (2021A4PS1920G) .....                          | 351 |
| PS-II STATION : MOODY'S ANALYTICS ,BENGALURU .....                            | 352 |

|                                                                               |     |
|-------------------------------------------------------------------------------|-----|
| FACULTY NAME: GAURAV NAGPAL .                                                 | 352 |
| STUDENT NAME: SARANSH MEHROTRA (2023H1540846P)                                | 352 |
| PS-II STATION : MOODY'S ANALYTICS ,BENGALURU                                  | 352 |
| FACULTY NAME: GAURAV NAGPAL .                                                 | 352 |
| STUDENT NAME: ANKIT SRIVASTAVA (2023H1540849P)                                | 352 |
| PS-II STATION : MORGAN STANLEY - FIRM RISK MANAGEMENT ,MUMBAI                 | 353 |
| FACULTY NAME: AMBATIPUDI VAMSIDHAR .                                          | 353 |
| STUDENT NAME: AASTHA SHAILESH PRAJAPATI (2020B5A82284H)                       | 353 |
| PS-II STATION : MORGAN STANLEY ADVANTAGE SERVICES - FRM ,MUMBAI               | 354 |
| FACULTY NAME: AMBATIPUDI VAMSIDHAR .                                          | 354 |
| STUDENT NAME: ANIRUDHA TONGE (2020B1A11967G)                                  | 354 |
| PS-II STATION : MORGAN STANLEY ADVANTAGE SERVICES - LEGAL AND COMPLIANCE      | 355 |
| ,MUMBAI                                                                       | 355 |
| FACULTY NAME: AMBATIPUDI VAMSIDHAR                                            | 355 |
| STUDENT NAME: NANDIGAMA VENKATA KARTHIK (2020B5A41940H)                       | 355 |
| PS-II STATION : MORGAN STANLEY ADVANTAGE SERVICES - LEGAL AND COMPLIANCE      | 356 |
| ,MUMBAI                                                                       | 356 |
| FACULTY NAME: AMBATIPUDI VAMSIDHAR .                                          | 356 |
| PS-II STATION : MORGAN STANLEY COUNTERPARTY RISK ROLE ,MUMBAI                 | 356 |
| FACULTY NAME: AMBATIPUDI VAMSIDHAR .                                          | 356 |
| STUDENT NAME: KRISHNA CHOPRA . (2020B5AA0719P)                                | 356 |
| PS-II STATION : MORGAN STANLEY EXO TRADING ,MUMBAI                            | 357 |
| FACULTY NAME: AMBATIPUDI VAMSIDHAR .                                          | 357 |
| STUDENT NAME: SHRISH SANJAY KUTHE . (2020B1A11900P)                           | 357 |
| PS-II STATION : MORGAN STANLEY FIXED INCOME DIVISION - COUNTERPARTY RISK ROLE | 358 |
| ,MUMBAI                                                                       | 358 |
| FACULTY NAME: AMBATIPUDI VAMSIDHAR .                                          | 358 |
| PS-II STATION : MORGAN STANLEY RESEARCH DATA STRATS ,MUMBAI                   | 359 |
| FACULTY NAME: AMBATIPUDI VAMSIDHAR .                                          | 359 |
| STUDENT NAME: SANKA RAKESH NAGASUDHAKAR PRASAD (2020B5A32252H)                | 359 |
| PS-II STATION : MOSDORFER INDIA PVT. LTD. ,NASHIK                             | 359 |
| FACULTY NAME: ARUN MAITY                                                      | 359 |
| STUDENT NAME: GURUDEEP G (2023H1420142P)                                      | 359 |
| PS-II STATION : MOSDORFER INDIA PVT. LTD. ,NASHIK                             | 360 |
| FACULTY NAME: ARUN MAITY                                                      | 360 |
| STUDENT NAME: SHUBHANKAR TIWARI (2023H1420216P)                               | 360 |

|                                                                                 |     |
|---------------------------------------------------------------------------------|-----|
| PS-II STATION : MOUNTTECH INDIA VENTURES PVT LTD ,DELHI .....                   | 361 |
| FACULTY NAME: PARAG RASTOGI .....                                               | 361 |
| STUDENT NAME: YASHOVARDHAN NAIK . (2021AAPS0621P).....                          | 361 |
| PS-II STATION : MSC SERVICES PVT. LTD. - NP ,MUMBAI .....                       | 362 |
| FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN .....                                 | 362 |
| STUDENT NAME: YASH PUROHIT . (2020B3A40946P) .....                              | 362 |
| PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU .....                        | 363 |
| FACULTY NAME: AKANKSHA BHARADWAJ .....                                          | 363 |
| STUDENT NAME: TAARAK SHUKLA (2020B2AA2530H).....                                | 363 |
| PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU .....                        | 364 |
| FACULTY NAME: AKANKSHA BHARADWAJ .....                                          | 364 |
| STUDENT NAME: DEEPALI RATHI (2020B4A82365H).....                                | 364 |
| PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU .....                        | 364 |
| FACULTY NAME: AKANKSHA BHARADWAJ .....                                          | 364 |
| STUDENT NAME: ANSH BHARDWAJ (2020B5A31847G) .....                               | 364 |
| PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU .....                        | 365 |
| FACULTY NAME: AKANKSHA BHARADWAJ .....                                          | 365 |
| STUDENT NAME: SHASHANK GAUTAM (2020B5A32378H) .....                             | 365 |
| PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU .....                        | 366 |
| FACULTY NAME: AKANKSHA BHARADWAJ .....                                          | 366 |
| STUDENT NAME: DHEERAJ BAIJU . (2021A3PS2232P).....                              | 366 |
| PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU .....                        | 367 |
| FACULTY NAME: AKANKSHA BHARADWAJ .....                                          | 367 |
| STUDENT NAME: TIMOTHY ZACHARIAH BINESH (2021A3PS2978H) .....                    | 367 |
| PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU .....                        | 368 |
| FACULTY NAME: AKANKSHA BHARADWAJ .....                                          | 368 |
| STUDENT NAME: CHINMAY SHARMA (2021AAPS0734H).....                               | 368 |
| PS-II STATION : NATIONAL CENTRE FOR BIOLOGICAL SCIENCES (NCBS) ,BENGALURU ..... | 370 |
| FACULTY NAME: BHARATHI R .....                                                  | 370 |
| STUDENT NAME: NOAH PINHEIRO (2020B1A41916G) .....                               | 370 |
| PS-II STATION : NATIONAL CENTRE FOR BIOLOGICAL SCIENCES (NCBS) ,BENGALURU ..... | 371 |
| FACULTY NAME: BHARATHI R .....                                                  | 371 |
| STUDENT NAME: PRANJALI KAUR SIDDHU (2023H1290004P) .....                        | 371 |
| PS-II STATION : NATIONAL CENTRE FOR BIOLOGICAL SCIENCES (NCBS) ,BENGALURU ..... | 372 |
| FACULTY NAME: BHARATHI R .....                                                  | 372 |
| STUDENT NAME: SHAMBHAVI SHUCHI (2023H1290009G) .....                            | 372 |



|                                                                                                                             |     |
|-----------------------------------------------------------------------------------------------------------------------------|-----|
| PS-II STATION : NATIONAL CENTRE FOR BIOLOGICAL SCIENCES (NCBS) ,BENGALURU .....                                             | 373 |
| FACULTY NAME: BHARATHI R .....                                                                                              | 373 |
| STUDENT NAME: VIMARISHI KOUL (2023H1290010P).....                                                                           | 373 |
| PS-II STATION : NAVATA ROAD TRANSPORT ,HYDERABAD .....                                                                      | 375 |
| FACULTY NAME: BHAMIDIPATI VAISHALI .....                                                                                    | 375 |
| STUDENT NAME: RISHAV SHARMA (2023H1420140P).....                                                                            | 375 |
| PS-II STATION : NAVATA SUPPLY CHAIN SOLUTIONS PVT LTD ,HYDERABAD.....                                                       | 376 |
| FACULTY NAME: SANDEEP KAYASTHA .....                                                                                        | 376 |
| STUDENT NAME: APURVA RAKESH (2023H1410104P).....                                                                            | 376 |
| PS-II STATION : NAVATA SUPPLY CHAIN SOLUTIONS PVT LTD ,HYDERABAD.....                                                       | 377 |
| FACULTY NAME: SANDEEP KAYASTHA .....                                                                                        | 377 |
| STUDENT NAME: HARSHAL R SONI (2023H1420141P).....                                                                           | 377 |
| PS-II STATION : NETAPP INDIA PVT LTD ,BENGALURU .....                                                                       | 378 |
| FACULTY NAME: CHENNUPATI RAKESH PRASANNA . .....                                                                            | 378 |
| STUDENT NAME: LAVYA DHAWAN . (2020B2A31927P) .....                                                                          | 378 |
| PS-II STATION : NETAPP INDIA PVT. LTD. - CLOUD VOLUME ENGINEERING ,BENGALURU FACULTY NAME:<br>REDDY RANI VANGIMALLA . ..... | 379 |
| STUDENT NAME: ANANSH K SHETTY (2020B3A70659G).....                                                                          | 379 |
| PS-II STATION : NETRADYNE,BENGALURU .....                                                                                   | 380 |
| FACULTY NAME: A MICHAEL ALPHONSE .....                                                                                      | 380 |
| STUDENT NAME: ROHAN SANDEEP DONGRE (2021A8PS2570G).....                                                                     | 380 |
| PS-II STATION : NETRADYNE,BENGALURU .....                                                                                   | 381 |
| FACULTYNAME: A MICHAEL ALPHONSE .....                                                                                       | 381 |
| STUDENT NAME: AMAN ASHISH SINGH (2021AAPS2857G) .....                                                                       | 381 |
| PS-II STATION : NIELSEN GLOBAL MEDIA ,BENGALURU .....                                                                       | 382 |
| FACULTY NAME: PARAG RASTOGI .....                                                                                           | 382 |
| STUDENT NAME: SHRIPURNA GANGOPADHYAY (2020B1A70603P) .....                                                                  | 382 |
| PS-II STATION : NIELSEN GLOBAL MEDIA ,BENGALURU .....                                                                       | 383 |
| FACULTY NAME: PARAG RASTOGI .....                                                                                           | 383 |
| STUDENT NAME: S SAI ROHIT (2020B2A70982H).....                                                                              | 383 |
| PS-II STATION : NIELSEN GLOBAL MEDIA ,BENGALURU .....                                                                       | 384 |
| FACULTY NAME: PARAG RASTOGI .....                                                                                           | 384 |
| STUDENT NAME: SHIVAM AGARWAL (2021A7PS2909G) .....                                                                          | 384 |
| PS-II STATION : NOMURA - RISK MANAGEMENT - RISK INFRASTRUCTURE,MUMBAI .....                                                 | 384 |
| FACULTY NAME: AMBATIPUDI VAMSIDHAR . .....                                                                                  | 384 |
| STUDENT NAME: VEDANT MAKARAND SHETE (2021A7PS0002G) .....                                                                   | 384 |

|                                                                                                                      |     |
|----------------------------------------------------------------------------------------------------------------------|-----|
| PS-II STATION : NOMURA- RISK MANAGEMENT - CREDIT RISK MANAGEMENT ,MUMBAI FACULTY<br>NAME: AMBATIPUDI VAMSIDHAR ..... | 385 |
| STUDENT NAME: EESHAN YOGESH DESHPANDE (2021A8PS1567G) .....                                                          | 385 |
| PS-II STATION : NOMURA- RISK MANAGEMENT - RISK METHODOLOGY GROUP ,MUMBAI FACULTY<br>NAME: AMBATIPUDI VAMSIDHAR ..... | 386 |
| STUDENT NAME: RISWADKAR PRALHAD ASHWINIKUMAR (2020B3AA1274H) .....                                                   | 386 |
| PS-II STATION : NOVARTIS- ANALYTICAL RESEARCH & DEVELOPMENT, SHAMEERPET, HYDERABAD .....                             | 387 |
| FACULTY NAME: BHARATHI R .....                                                                                       | 387 |
| STUDENT NAME: VAISHNAVI SANJAY NIKAM (2023H1460199H) .....                                                           | 387 |
| PS-II STATION : NOVARTIS- ANALYTICAL RESEARCH & DEVELOPMENT, SHAMEERPET, HYDERABAD .....                             | 387 |
| FACULTY NAME: BHARATHI R .....                                                                                       | 387 |
| STUDENT NAME: GORE VEDANGI VILAS (2023H1460220P) .....                                                               | 387 |
| PS-II STATION : NOVARTIS- DATA SCIENCE & ANALYTICS RAIDURG, HYDERABAD .....                                          | 388 |
| FACULTY NAME: BHARATHI R .....                                                                                       | 388 |
| STUDENT NAME: ANIRUDH BAGALKOTKER (2021A7PS2682H) .....                                                              | 388 |
| PS-II STATION : NOVARTIS- DATA SCIENCE & ANALYTICS RAIDURG, HYDERABAD ,HYDERABAD FACULTY<br>NAME: BHARATHI R .....   | 389 |
| STUDENT NAME: SUDHANSHU PATIL (2021AAPS0663H) .....                                                                  | 389 |
| PS-II STATION : NOVARTIS- ICSM IMPLEMENTATION SUPPORT RAIDURG, HYDERABAD .....                                       | 390 |
| FACULTY NAME: BHARATHI R .....                                                                                       | 390 |
| STUDENT NAME: SHIVANGI SINGH (2023H1470204P) .....                                                                   | 390 |
| PS-II STATION : NOVARTIS- ICSM IMPLEMENTATION SUPPORT RAIDURG, HYDERABAD .....                                       | 391 |
| FACULTY NAME: BHARATHI R .....                                                                                       | 391 |
| STUDENT Name: MOUNIKA VARKALA (2023H1530216H) .....                                                                  | 391 |
| PS-II STATION : NOVARTIS- PHARMOCOVIGILANCE RAIDURG, HYDERABAD .....                                                 | 392 |
| FACULTY NAME: BHARATHI R .....                                                                                       | 392 |
| STUDENT NAME: PRATIKSHA JADHAV (2023H1460210H) .....                                                                 | 392 |
| PS-II STATION : NUTANIX , BENGALURU .....                                                                            | 392 |
| FACULTY NAME: CHANDRA SHEKAR R K .....                                                                               | 392 |
| STUDENT NAME: KOKIL SINGH (2020B1A72027H) .....                                                                      | 392 |
| PS-II STATION : NUTANIX , BENGALURU .....                                                                            | 393 |
| FACULTY NAME: CHANDRA SHEKAR R K . .....                                                                             | 393 |
| STUDENT NAME: MEHUL TAMBI (2020B1A72382H) .....                                                                      | 393 |
| PS-II STATION : NUTANIX , BENGALURU .....                                                                            | 394 |
| FACULTY NAME: CHANDRA SHEKAR R K . .....                                                                             | 394 |
| STUDENT NAME: PRIYANSHU PRASHANT VERMA (2020B1A72472H) .....                                                         | 394 |
| PS-II STATION : NUTANIX , BENGALURU ,BENGALURU .....                                                                 | 395 |

|                                                                |     |
|----------------------------------------------------------------|-----|
| FACULTY NAME: CHANDRA SHEKAR R K .....                         | 395 |
| STUDENT NAME: YASH AGARWAL (2020B1AA2483H) .....               | 395 |
| PS-II STATION : NUTANIX , BENGALURU .....                      | 396 |
| FACULTY NAME: CHANDRA SHEKAR R K . .....                       | 396 |
| STUDENT NAME: SIDDHARTH BHATT (2020B3A32157H) .....            | 396 |
| PS-II STATION : NUTANIX , BENGALURU .....                      | 397 |
| FACULTY NAME: CHANDRA SHEKAR R K . .....                       | 397 |
| STUDENT NAME: MUHAMMED JIBRAN FAIZ MALIM (2020B3A70367G) ..... | 397 |
| PS-II STATION : NUTANIX , BENGALURU .....                      | 397 |
| FACULTY NAME: CHANDRA SHEKAR R K . .....                       | 397 |
| STUDENT NAME: SOURAV PANIGRAHY (2020B5A32175H) .....           | 397 |
| PS-II STATION : NUTANIX , BENGALURU .....                      | 398 |
| FACULTY NAME: CHANDRA SHEKAR R K . .....                       | 398 |
| STUDENT NAME: ISHAAN SURAJ KUDCHADKAR (2020B5A70775G) .....    | 398 |
| PS-II STATION : NUTANIX , BENGALURU .....                      | 399 |
| FACULTY NAME: CHANDRA SHEKAR R K . .....                       | 399 |
| STUDENT NAME: AYUSH BHAUWALA (2021A7PS0180H) .....             | 399 |
| PS-II STATION : NUTANIX , BENGALURU .....                      | 399 |
| FACULTY NAME: CHANDRA SHEKAR R K . .....                       | 399 |
| STUDENT NAME: TARIMALA VIGNESH REDDY (2021A7PS0234H) .....     | 399 |
| PS-II STATION : NUTANIX, PUNE .....                            | 401 |
| FACULTY NAME: CHANDRA SHEKAR R K . .....                       | 401 |
| STUDENT NAME: AADEESH GARG . (2021A7PS0446P) .....             | 401 |
| PS-II STATION : NVIDIA GRAPHICS – BENGALURU .....              | 401 |
| FACULTY NAME: KRANTHI KUMAR PALAVALASA .....                   | 401 |
| STUDENT NAME: BILAL SHAIKH (2021A3PS0855H) .....               | 401 |
| PS-II STATION : NVIDIA GRAPHICS – BENGALURU .....              | 402 |
| FACULTY NAME: KRANTHI KUMAR PALAVALASA .....                   | 402 |
| STUDENT NAME: CHINMAY SOGANI (2021A3PS1148G) .....             | 402 |
| PS-II STATION : NVIDIA GRAPHICS - BENGALURU .....              | 403 |
| FACULTY NAME: KRANTHI KUMAR PALAVALASA .....                   | 403 |
| STUDENT NAME: ADNAN ALTAF (2021A3PS2831H) .....                | 403 |
| PS-II STATION : NVIDIA GRAPHICS - BENGALURU , .....            | 404 |
| FACULTY NAME: KRANTHI KUMAR PALAVALASA .....                   | 404 |
| STUDENT NAME: KHUSHI JAIN (2021A8PS3006H) .....                | 404 |
| PS-II STATION : NVIDIA GRAPHICS – BENGALURU .....              | 405 |

|                                                                |     |
|----------------------------------------------------------------|-----|
| FACULTY NAME: KRANTHI KUMAR PALAVALASA .....                   | 405 |
| STUDENT NAME: SAMUDRALA LAKSHMI SRILEKHA (2023H1230164H) ..... | 405 |
| PS-II STATION : NXP INDIA PVT LTD, BENGALURU .....             | 406 |
| FACULTY NAME: HARISH KUMAR J. R.....                           | 406 |
| STUDENT NAME: SUMAN BISWAJIT MONDAL (2021AAPS1696G) .....      | 406 |
| PS-II STATION : NYKAA - DATA SCIENCE ,BENGALURU .....          | 407 |
| FACULTY NAME: SWARNA CHAUDHARY .....                           | 407 |
| STUDENT NAME: ADITYA DASH (2023H1030085P) .....                | 407 |
| PS-II STATION : NYKAA - DATA SCIENCE ,BENGALURU.....           | 408 |
| FACULTY NAME: SWARNA CHAUDHARY . .....                         | 408 |
| STUDENT NAME: SAURAV S (2023H1120184P) .....                   | 408 |
| PS-II STATION : NYKAA - PRODUCT, GURGAON .....                 | 409 |
| FACULTY NAME: SWARNA CHAUDHARY .....                           | 409 |
| STUDENT NAME: SHREYA AMBHORE . (2020B2AA1946P) .....           | 409 |
| PS-II STATION : OF BUSINESS, GURUGRAM .....                    | 410 |
| FACULTY NAME: ASHISH NARANG .....                              | 410 |
| STUDENT NAME: SHAIK AMAAN PARVEZ (2023H1030085H).....          | 410 |
| PS-II STATION : ORACLE, BANGALORE .....                        | 412 |
| FACULTY NAME: SRINATH R.NAIDU .....                            | 412 |
| STUDENT NAME: SARTHAK DHIMAN (2020B1A72413H).....              | 412 |
| PS-II STATION : ORACLE, BANGALORE .....                        | 412 |
| FACULTY NAME: SRINATH R.NAIDU .....                            | 412 |
| STUDENT NAME: GANDHI SHANAY RAHUL (2020B2A72072G) .....        | 412 |
| PS-II STATION : ORACLE, BANGALORE .....                        | 413 |
| FACULTY NAME: SRINATH R.NAIDU .....                            | 413 |
| STUDENT NAME: SHREY MEHTA (2020B3A71459G) .....                | 413 |
| PS-II STATION : ORACLE, BANGALORE .....                        | 414 |
| FACULTY NAME: SRINATH R.NAIDU . .....                          | 414 |
| STUDENT NAME: TANMAY SATIJA (2020B3A71516G).....               | 414 |
| PS-II STATION : ORACLE, BANGALORE .....                        | 415 |
| FACULTY NAME: SRINATH R.NAIDU .....                            | 415 |
| STUDENT NAME: RADHIKA JAYAN NAIR (2021A7PS0005G) .....         | 415 |
| PS-II STATION : ORACLE, BANGALORE .....                        | 416 |
| FACULTY NAME: SRINATH R.NAIDU .....                            | 416 |
| STUDENT NAME: SIDDHANT SRINIVAS (2021A7PS0050H) .....          | 416 |
| PS-II STATION : ORACLE, BANGALORE .....                        | 417 |

|                                                              |     |
|--------------------------------------------------------------|-----|
| FACULTY NAME: SRINATH R.NAIDU .....                          | 417 |
| STUDENT NAME: ACHINTHYA HEBBAR S . (2021A7PS1457P).....      | 417 |
| PS-II STATION : ORACLE, BANGALORE .....                      | 418 |
| FACULTY NAME: SRINATH R.NAIDU .....                          | 418 |
| STUDENT NAME: AGRAWAL VANSI ANIL . (2021A7PS2215P) .....     | 418 |
| PS-II STATION : ORACLE, BANGALORE .....                      | 419 |
| FACULTY NAME: SRINATH R.NAIDU .....                          | 419 |
| STUDENT NAME: ARNAV GOYAL (2021A7PS2596G).....               | 419 |
| PS-II STATION : ORACLE, BANGALORE .....                      | 420 |
| FACULTY NAME: SRINATH R.NAIDU .....                          | 420 |
| STUDENT NAME: ARYAN NAMBIAR (2021A7PS2619G) .....            | 420 |
| PS-II STATION : ORACLE, BANGALORE .....                      | 421 |
| FACULTY NAME: SRINATH R.NAIDU .....                          | 421 |
| STUDENT NAME: ANUJ NETHWEWALA (2021A7PS2716G) .....          | 421 |
| PS-II STATION : ORACLE, BANGALORE .....                      | 422 |
| FACULTY NAME: SRINATH R.NAIDU .....                          | 422 |
| STUDENT NAME: RAGHAV SARDA (2021A7PS2765H) .....             | 422 |
| PS-II STATION : PEGASYSTEMS, HYDERABAD.....                  | 423 |
| FACULTY NAME: SAI KISHOR JANGITI . .....                     | 423 |
| STUDENT NAME: DIVYANSHI GUPTA (2023H1030091H).....           | 423 |
| PS-II STATION : PEGASYSTEMS, HYDERABAD.....                  | 424 |
| FACULTY NAME: SAI KISHOR JANGITI . .....                     | 424 |
| STUDENT NAME: HITANSHU NIRAV VYAS (2023H1030092P).....       | 424 |
| PS-II STATION : PEGASYSTEMS, HYDERABAD.....                  | 425 |
| FACULTY NAME: SAI KISHOR JANGITI . .....                     | 425 |
| STUDENT NAME: SREEJISH KRISHNA (2023H1030093H) .....         | 425 |
| PS-II STATION : PEGASYSTEMS, HYDERABAD.....                  | 426 |
| FACULTY NAME: SAI KISHOR JANGITI . .....                     | 426 |
| STUDENT NAME: KHALASI ANIKET VIJAYKUMAR (2023H1120188P)..... | 426 |
| PS-II STATION : PEGASYSTEMS, HYDERABAD.....                  | 428 |
| FACULTY NAME: SAI KISHOR JANGITI . .....                     | 428 |
| STUDENT NAME: BHAWINI AGRAWAL (2023H1120202P).....           | 428 |
| PS-II STATION : PFIZER LTD., CHENNAI.....                    | 429 |
| FACULTY NAME: BHARATHI R .....                               | 429 |
| STUDENT NAME: MUGDHA MITTAL (2019HS461177H) .....            | 429 |
| PS-II STATION : PFIZER LTD., CHENNAI.....                    | 430 |

|                                                                              |     |
|------------------------------------------------------------------------------|-----|
| FACULTY NAME: BHARATHI R .....                                               | 430 |
| STUDENT NAME: ANANDITA NAIR (2023H1290009P) .....                            | 430 |
| PS-II STATION : PHARMAACE,PUNE .....                                         | 431 |
| FACULTY NAME: BHARATHI R .....                                               | 431 |
| STUDENT NAME: TAMANPREET KAUR SODHI (2023H1530212P) .....                    | 431 |
| PS-II STATION : PHARMSIGHT RESEARCH AND ANALYTICS PVT. LTD. ,FARIDABAD ..... | 432 |
| FACULTY NAME: BHARATHI R .....                                               | 432 |
| STUDENT NAME: AASHITA SAXENA . (2021A5PS1228P).....                          | 432 |
| PS-II STATION : PHARMSIGHT RESEARCH AND ANALYTICS PVT. LTD. ,FARIDABAD ..... | 433 |
| FACULTY NAME: BHARATHI R .....                                               | 433 |
| STUDENT NAME: SHUBHASHREE DASH . (2021A5PS1620P).....                        | 433 |
| PS-II STATION : PHONEPE PVT.LTD., ,BENGALURU .....                           | 434 |
| FACULTY NAME: SUGATA GHOSAL .....                                            | 434 |
| STUDENT NAME: ARJOO KUMARI . (2020B3A70770P).....                            | 434 |
| PS-II STATION : PHONEPE PVT.LTD., ,BENGALURU .....                           | 434 |
| FACULTY NAME: SUGATA GHOSAL .....                                            | 434 |
| STUDENT NAME: PRATIK LAHIRI (2020B3A71165G).....                             | 434 |
| PS-II STATION : PIEDS BITS PILANI .....                                      | 436 |
| FACULTY NAME: ANJANI SRIKANTH KOKA .....                                     | 436 |
| STUDENT NAME: SHRUTI HALWAI . (2019A7PS0003P).....                           | 436 |
| PS-II STATION : PIEDS BITS PILANI .....                                      | 436 |
| FACULTY NAME: ANJANI SRIKANTH KOKA .....                                     | 436 |
| STUDENT NAME: MADHAV GARG . (2020B1AA1890P) .....                            | 436 |
| PS-II STATION : PIEDS BITS PILANI.....                                       | 437 |
| FACULTY NAME: ANJANI SRIKANTH KOKA .....                                     | 437 |
| STUDENT NAME: PRIYANKA SATHEESAN NAMBOODRI (2020B1AB1901P).....              | 437 |
| PS-II STATION : PIEDS BITS PILANI .....                                      | 438 |
| FACULTY NAME: ANJANI SRIKANTH KOKA .....                                     | 438 |
| STUDENT NAME: MAYANK KUMAR SINGH . (2020B5A21462P) .....                     | 438 |
| PS-II STATION : PIEDS BITS PILANI .....                                      | 439 |
| FACULTY NAME: ANJANI SRIKANTH KOKA .....                                     | 439 |
| STUDENT NAME: GURUPAM DIXIT . (2020B5A40627P) .....                          | 439 |
| PS-II STATION : PIEDS BITS PILANI .....                                      | 440 |
| FACULTY NAME: ANJANI SRIKANTH KOKA .....                                     | 440 |
| STUDENT NAME: MIHIKA PARAG DESHPANDE . (2021A7PS2435P) .....                 | 440 |
| PS-II STATION : PIEDS, BENGALURU .....                                       | 441 |

|                                                                        |     |
|------------------------------------------------------------------------|-----|
| FACULTY NAME: ANJANI SRIKANTH KOKA .....                               | 441 |
| STUDENT NAME: THAREJA DHRITI (2021A8PS1659G).....                      | 441 |
| PS-II STATION : PIRAMAL GROUP - TECH, BENGALURU .....                  | 442 |
| FACULTY NAME: ANKUR PACHAURI .....                                     | 442 |
| STUDENT NAME: KONKIMALLA VENKATA SAI VARUN (2020B2A42393H) .....       | 442 |
| PS-II STATION : PIRAMAL GROUP - TECH, BENGALURU .....                  | 443 |
| FACULTY NAME: ANKUR PACHAURI .....                                     | 443 |
| STUDENT NAME: ARKODIPTO DUTTA (2020B4A72177H).....                     | 443 |
| PS-II STATION : PIRAMAL GROUP - TECH, BENGALURU .....                  | 444 |
| FACULTY NAME: ANKUR PACHAURI .....                                     | 444 |
| STUDENT NAME: AKSHITI GARG (2021A3PS2499H) .....                       | 444 |
| PS-II STATION : PIRAMAL GROUP - TECH, BENGALURU .....                  | 445 |
| FACULTY NAME: ANKUR PACHAURI .....                                     | 445 |
| STUDENT NAME: ARINJAY SHARMA (2021A8PS2845G) .....                     | 445 |
| PS-II STATION : PIRAMAL PHARMA LIMITED ,MUMBAI .....                   | 446 |
| FACULTY NAME: ANKUR PACHAURI .....                                     | 446 |
| STUDENT NAME: VEDANT GANGRADE (2020B4A81571G).....                     | 446 |
| PS-II STATION : PIXIS - TECH, BENGALURU .....                          | 447 |
| FACULTY NAME: AKANKSHA BHARADWAJ . .....                               | 447 |
| STUDENT NAME: DHRUV KHURANA (2023H1120185P).....                       | 447 |
| PS-II STATION : PORTER - BUSINESS INTERNSHIP. ,BENGALURU .....         | 448 |
| FACULTY NAME: MONALI TUSHAR MAVANI . .....                             | 448 |
| STUDENT NAME: PATHA AKHIL (2020B4A41014H) .....                        | 448 |
| PS-II STATION : POSIDEX TECHNOLOGIES P LTD, HYDERABAD .....            | 449 |
| FACULTY NAME: SAI KISHOR JANGITI . .....                               | 449 |
| STUDENT NAME: KARTIK CHITOOR (2020B4A81617H) .....                     | 449 |
| PS-II STATION : POSTMAN ,BENGALURU.....                                | 450 |
| FACULTY NAME: SHREYAS SURESH RAO .....                                 | 450 |
| STUDENT NAME: UDIT GUPTA (2020B4A72368H).....                          | 450 |
| PS-II STATION : PRASHANU HOSPITAL, PALGHAR, MAHARASHTRA ,PALGHAR ..... | 450 |
| FACULTY NAME: BHARATHI R .....                                         | 450 |
| STUDENT NAME: RUTVA LINGAPURI . (2020B5A81455P) .....                  | 450 |
| PS-II STATION : PRATT & WHITNEY ,BENGALURU .....                       | 451 |
| FACULTY NAME: SRINIVAS KOTA .....                                      | 451 |
| STUDENT NAME: NINAAD SACHIN KOTASTHANE (2021A4PS2545G).....            | 451 |
| PS-II STATION : PRECOG INNOVATIONS PARTNERS PVT. LTD ,GURGAON.....     | 452 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| FACULTY NAME: PARAG RASTOGI .....                               | 452 |
| STUDENT NAME: SHIVAM SAHU . (2020B3A31858H).....                | 452 |
| PS-II STATION : PROCTER & GAMBLE (P&G) ,MUMBAI.....             | 453 |
| FACULTY NAME: ANKUR PACHAURI .....                              | 453 |
| STUDENT NAME: SURAJ VIJAY PHALOD . (2020B3A71959P) .....        | 453 |
| PS-II STATION : PROTEANTECS - MACHINE LEARNING, BENGALURU ..... | 454 |
| FACULTY NAME: SWAPNA S KULKARNI .....                           | 454 |
| STUDENT NAME: GEORGE SIMON (2021AAPS2694H).....                 | 454 |
| PS-II STATION : PWC US ADVISORY ,BENGALURU .....                | 454 |
| FACULTY NAME: SAI KISHOR JANGITI . .....                        | 454 |
| STUDENT NAME: SAHIL SUDESH (2020B4A31868G).....                 | 454 |
| PS-II STATION : QICAP MARKETS LLP ,BENGALURU .....              | 455 |
| FACULTY NAME: SHREYAS SURESH RAO .....                          | 455 |
| STUDENT NAME: PAVAN S V (2021A3PS0810H) .....                   | 455 |
| PS-II STATION : QICAP MARKETS LLP ,BENGALURU .....              | 456 |
| FACULTY NAME: SHREYAS SURESH RAO .....                          | 456 |
| STUDENT NAME: PATEL DHRUV YOGESH (2021A7PS2672G) .....          | 456 |
| PS-II STATION : QICAP MARKETS LLP ,BENGALURU .....              | 457 |
| FACULTY NAME: SHREYAS SURESH RAO .....                          | 457 |
| STUDENT NAME: ADITYA MAHAJAN (2021A7PS2715H).....               | 457 |
| PS-II STATION : QICAP MARKETS LLP ,BENGALURU .....              | 457 |
| FACULTY NAME: SHREYAS SURESH RAO .....                          | 457 |
| STUDENT NAME: ANSH KANOTRA (2021AAPS3025H).....                 | 457 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 458 |
| FACULTY NAME: MADHURI BAYYA .....                               | 458 |
| STUDENT NAME: RASHI SINGH (2021A3PS0807H) .....                 | 458 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 459 |
| FACULTY NAME: MADHURI BAYYA .....                               | 459 |
| STUDENT NAME: MAHI KUMARI (2021A3PS0948H).....                  | 459 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 460 |
| FACULTY NAME: MADHURI BAYYA .....                               | 460 |
| STUDENT NAME: GOPALCHETTY TEJASWI . (2021A3PS2384P) .....       | 460 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 461 |
| FACULTY NAME: MADHURI BAYYA .....                               | 461 |
| STUDENT NAME: SHIVAM ATUL TRIVEDI (2021A7PS1512H).....          | 461 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 462 |



|                                                                 |     |
|-----------------------------------------------------------------|-----|
| FACULTY NAME: MADHURI BAYYA .....                               | 462 |
| STUDENT NAME: SHASHANK REDDY GADE (2021AAPS0482H) .....         | 462 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 463 |
| FACULTY NAME: MADHURI BAYYA .....                               | 463 |
| STUDENT NAME: SAI CHARAN VIHARI KATLAMUDI (2021AAPS0564H) ..... | 463 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 465 |
| FACULTY NAME: MADHURI BAYYA .....                               | 465 |
| STUDENT NAME: AMIT NARAYAN SATPATHY (2021AAPS2127H).....        | 465 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 465 |
| FACULTY NAME: MADHURI BAYYA .....                               | 465 |
| STUDENT NAME: ASHESH VERMA (2021AAPS3021H) .....                | 465 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 466 |
| FACULTY NAME: MADHURI BAYYA .....                               | 466 |
| STUDENT NAME: AAYUSH JAIN (2023H1030083P).....                  | 466 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 467 |
| FACULTY NAME: MADHURI BAYYA .....                               | 467 |
| STUDENT NAME: GONDHALEKAR ADWAIT ATUL (2023H1030089P).....      | 467 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 468 |
| FACULTY NAME: MADHURI BAYYA .....                               | 468 |
| STUDENT NAME: VADLAMANI MANJUSHA (2023H1030097H).....           | 468 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 469 |
| FACULTY NAME: MADHURI BAYYA .....                               | 469 |
| STUDENT NAME: LUHANA VANDANA CHETANDAS (2023H1120189P) .....    | 469 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 470 |
| FACULTY NAME: MADHURI BAYYA .....                               | 470 |
| STUDENT NAME: UTKARSH SINGH (2023H1230147G) .....               | 470 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 470 |
| FACULTY NAME: MADHURI BAYYA .....                               | 470 |
| STUDENT NAME: AJAY KUMAR GIRI (2023H1230175H) .....             | 470 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 471 |
| FACULTY NAME: MADHURI BAYYA .....                               | 471 |
| STUDENT NAME: GUDURU SAI SURESH (2023H1230183H) .....           | 471 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 472 |
| FACULTY NAME: MADHURI BAYYA .....                               | 472 |
| STUDENT NAME: RADHANATH MISHRA (2023H1230185H).....             | 472 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                        | 473 |

|                                                                           |     |
|---------------------------------------------------------------------------|-----|
| FACULTY NAME: MADHURI BAYYA .....                                         | 473 |
| STUDENT NAME: SHREEBHASHYAM ROHITH (2023H1240054H) .....                  | 473 |
| PS-II STATION : QUALCOMM ,HYDERABAD.....                                  | 474 |
| FACULTY NAME: MADHURI BAYYA .....                                         | 474 |
| STUDENT NAME: SANJANA DHARMENDRA TIWARI (2023H1240073P) .....             | 474 |
| PS-II STATION : QUBE RESEARCH AND TECHNOLOGY INDIA LLP ,MUMBAI.....       | 475 |
| FACULTY NAME: BANDI VENKATA PRASAD .....                                  | 475 |
| STUDENT NAME: ARYAN GUPTA (2021A7PS0162H).....                            | 475 |
| PS-II STATION : QURE.AI - PRODUCT MANAGEMENT ,BENGALURU .....             | 476 |
| FACULTY NAME: SWARNA CHAUDHARY . .....                                    | 476 |
| STUDENT NAME: KRISHNA PRASAD S (2020B5A41891G).....                       | 476 |
| PS-II STATION : QURE.AI TECHNOLOGIES PVT. LTD. ,BENGALURU .....           | 477 |
| FACULTY NAME: SWARNA CHAUDHARY . .....                                    | 477 |
| STUDENT NAME: AYUSH GUPTA . (2020B3A70838P).....                          | 477 |
| PS-II STATION : QURE.AI TECHNOLOGIES PVT. LTD. ,BENGALURU .....           | 477 |
| FACULTY NAME: SWARNA CHAUDHARY . .....                                    | 477 |
| STUDENT NAME: MANTHAN CHIRAG PATEL (2021A7PS2691H) .....                  | 477 |
| PS-II STATION : RAHI PLATFORM TECHNOLOGIES ,PUNE .....                    | 478 |
| FACULTY NAME: ANKUR PACHAURI .....                                        | 478 |
| STUDENT NAME: STITIPRANGYA PATRA (2020B4AA1856G) .....                    | 478 |
| PS-II STATION : RENESAS, HYDERABAD ,HYDERABAD.....                        | 480 |
| FACULTY NAME: SANJAY VIDHYADHARAN .....                                   | 480 |
| STUDENT NAME: R. HARIHARAN (2021AAPS1832H) .....                          | 480 |
| PS-II STATION : RIGI - IT,BENGALURU .....                                 | 480 |
| FACULTY NAME: REDDY RANI VANGIMALLA . .....                               | 480 |
| STUDENT NAME: SUBHRAMIT BASU BHOWMICK . (2020B1A70611P).....              | 480 |
| PS-II STATION : RT VISION TECHNOLOGIES PVT. LTD ,GREATER NOIDA .....      | 481 |
| FACULTY NAME: HARISH KUMAR J. R.....                                      | 481 |
| STUDENT NAME: ABHISHEK SINGH CHIB (2023H1400107G).....                    | 481 |
| PS-II STATION : RT VISION TECHNOLOGIES PVT. LTD ,GREATER NOIDA .....      | 482 |
| FACULTY NAME: HARISH KUMAR J. R.....                                      | 482 |
| STUDENT NAME: ADITYA SHRIVASTAVA (2023H1400131P).....                     | 482 |
| PS-II STATION : RUBRIK,BENGALURU .....                                    | 484 |
| FACULTY NAME: FEBIN A VAHAB .....                                         | 484 |
| STUDENT NAME: PAVAS GARG (2021A7PS2587H) .....                            | 484 |
| PS-II STATION : RUSK MEDIA PVT. LTD - FULLSTACK ENGINEER ,NEW DELHI ..... | 485 |

|                                                                           |     |
|---------------------------------------------------------------------------|-----|
| FACULTY NAME: PRAVIN YASHWANT PAWAR .                                     | 485 |
| STUDENT NAME: PRITAM BASU (2021A7PS2175H).                                | 485 |
| PS-II STATION : SAMSUNG SEMICONDUCTOR INDIA RESEARCH ,BENGALURU           | 486 |
| FACULTY NAME: SWAPNA S KULKARNI                                           | 486 |
| STUDENT NAME: VAIYATA MITUL SHAILESHBHAI (2023H1030088H)                  | 486 |
| PS-II STATION : SAMSUNG SEMICONDUCTOR INDIA RESEARCH ,BENGALURU           | 488 |
| FACULTY NAME: SWAPNA S KULKARNI                                           | 488 |
| STUDENT NAME: RIDDHI JAGDISH NARKAR (2023H1030095H)                       | 488 |
| PS-II STATION : SAMSUNG SEMICONDUCTOR INDIA RESEARCH ,BENGALURU           | 488 |
| FACULTY NAME: SWAPNA S KULKARNI                                           | 488 |
| STUDENT NAME: BENNET MATHEW (2023H1230161P).                              | 488 |
| PS-II STATION : SAMSUNG SEMICONDUCTOR INDIA RESEARCH ,BENGALURU           | 489 |
| FACULTY NAME: SWAPNA S KULKARNI                                           | 489 |
| STUDENT NAME: MEKALA SRAVAN KUMAR (2023H1400115H)                         | 489 |
| PS-II STATION : SARVAM AI ,BENGALURU                                      | 489 |
| FACULTY NAME: K VENKATASUBRAMANIAN                                        | 489 |
| STUDENT NAME: SRIVATSAV RAMARAJU . (2020B3A71968P)                        | 489 |
| PS-II STATION : SCAPIA TECHNOLOGY PVT.LTD., - BUSINESS ANALYST ,BENGALURU | 490 |
| FACULTY NAME: ARINDAM ROY                                                 | 490 |
| STUDENT NAME: SUKHANROOP KAUR BRAR . (2020B2A31922P)                      | 490 |
| PS-II STATION : SEDEMAC MECHATRONICS LIMITED ,PUNE                        | 491 |
| FACULTY NAME: MANOJ SUBHASH KAKADE                                        | 491 |
| STUDENT NAME: PRIYANK KHANDELWAL (2021A3PS2450G)                          | 491 |
| PS-II STATION : SEDEMAC MECHATRONICS LIMITED ,PUNE                        | 492 |
| FACULTY NAME: MANOJ SUBHASH KAKADE                                        | 492 |
| STUDENT NAME: MANISH PARLA (2021AAPS1313G).                               | 492 |
| PS-II STATION : SHELADIA ASSOCIATES, INC. ,SECUNDERABAD                   | 493 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA                                     | 493 |
| STUDENT NAME: PRATHI VENKATA SAI AKASH (2023H1300047H).                   | 493 |
| PS-II STATION : SIEMENS EDA INDIA PVT.LTD., ,NOIDA                        | 494 |
| FACULTY NAME: RAJESH KUMAR TIWARY                                         | 494 |
| STUDENT NAME: PRABHANSHU TRIPATHI (2021A7PS2065G)                         | 494 |
| PS-II STATION : SIEMENS ENERGY, GURUGRAM                                  | 495 |
| FACULTY NAME: SUDEEP KUMAR PRADHAN .                                      | 495 |
| STUDENT NAME: ADITYA AGRAWAL . (2020B5A42010P).                           | 495 |
| PS-II STATION : SIEMENS ENERGY, GURUGRAM                                  | 496 |

|                                                                      |     |
|----------------------------------------------------------------------|-----|
| FACULTY NAME: SUDEEP KUMAR PRADHAN .                                 | 496 |
| STUDENT NAME: PEDDIREDY VISHNU VARDHAN REDDY (2021A4PS1199G)         | 496 |
| PS-II STATION : SIEMENS ENERGY, GURUGRAM                             | 497 |
| FACULTY NAME: SUDEEP KUMAR PRADHAN .                                 | 497 |
| STUDENT NAME: LAVANYA ANANTHAN (2021A4PS2332G)                       | 497 |
| PS-II STATION : SIEMENS ENERGY, GURUGRAM                             | 499 |
| FACULTY NAME: SUDEEP KUMAR PRADHAN .                                 | 499 |
| STUDENT NAME: ADITYA BANDYOPADHYAY (2021A4PS2708G)                   | 499 |
| PS-II STATION : SIEMENS ENERGY, GURUGRAM                             | 500 |
| FACULTY NAME: SUDEEP KUMAR PRADHAN .                                 | 500 |
| STUDENT NAME: ASHMIKA JAIN (2021A4PS2829G)                           | 500 |
| PS-II STATION : SIEMENS ENERGY, GURUGRAM                             | 501 |
| FACULTY NAME: SUDEEP KUMAR PRADHAN .                                 | 501 |
| STUDENT NAME: ISHA BANDYOPADHYAY (2021A4PS2888G)                     | 501 |
| PS-II STATION : SIEMENS ENERGY, VADODARA                             | 502 |
| FACULTY NAME: SUDEEP KUMAR PRADHAN .                                 | 502 |
| STUDENT NAME: ANANYA SARASWAT . (2020B1A40616P)                      | 502 |
| PS-II STATION : SIEMENS ENERGY, VADODARA                             | 503 |
| FACULTY NAME: SUDEEP KUMAR PRADHAN .                                 | 503 |
| STUDENT NAME: ANUSHKA P NAIR (2020B5A41624G)                         | 503 |
| PS-II STATION : SIEMENS ENERGY, VADODARA                             | 504 |
| FACULTY NAME: SUDEEP KUMAR PRADHAN .                                 | 504 |
| STUDENT NAME: SHREYAN SANDEEP KANVINDE (2021A4PS2296G)               | 504 |
| PS-II STATION : SIEMENS ENERGY, VADODARA                             | 504 |
| FACULTY NAME: SUDEEP KUMAR PRADHAN .                                 | 504 |
| STUDENT NAME: ADITYA LALIT SHRIPAD (2021A4PS2711G)                   | 504 |
| PS-II STATION : SIEMENS INDUSTRY SOFTWARE INDIA PVT. LTD, PUNE ,PUNE | 505 |
| FACULTY NAME: CHETANA ANOOP GAVANKAR                                 | 505 |
| STUDENT NAME: DANAI ADITYA DHANANJAY (2021A7PS2509G)                 | 505 |
| PS-II STATION : SIFIVE INDIA PVT LTD ,BENGALURU                      | 507 |
| FACULTY NAME: A REKHA                                                | 507 |
| STUDENT NAME: PAURAS SUNIL PATIL . (2020B2A30704P)                   | 507 |
| PS-II STATION : SIFIVE INDIA PVT LTD ,BENGALURU                      | 509 |
| FACULTY NAME: A REKHA                                                | 509 |
| STUDENT NAME: ANANT JAIN (2020B5AA1569G)                             | 509 |
| PS-II STATION : SILICON LABS ,HYDERABAD                              | 510 |

|                                                                       |     |
|-----------------------------------------------------------------------|-----|
| FACULTY NAME: SUPARNA CHAKRABORTY .                                   | 510 |
| STUDENT NAME: MAMIDANNAKRISHNATEJA (2023H1240050H).                   | 510 |
| PS-II STATION : SILICON LABS ,HYDERABAD                               | 510 |
| FACULTY NAME: SUPARNA CHAKRABORTY .                                   | 510 |
| STUDENT NAME: V SOWBARANIC RAJ (2023H1240051H)                        | 510 |
| PS-II STATION : SINGLESTORE INDIA PVT LTD,HYDERABAD                   | 511 |
| FACULTY NAME: SAI KISHOR JANGITI .                                    | 511 |
| STUDENT NAME: ANKITH PRAVEEN (2020B4A70625G)                          | 511 |
| PS-II STATION : SINGLESTORE INDIA PVT LTD,HYDERABAD                   | 513 |
| FACULTY NAME: SAI KISHOR JANGITI .                                    | 513 |
| STUDENT NAME: DEV GALA (2021A7PS0182H).                               | 513 |
| PS-II STATION : SINGLESTORE INDIA PVT LTD,HYDERABAD                   | 513 |
| FACULTY NAME: SAI KISHOR JANGITI .                                    | 513 |
| STUDENT NAME: NALLA REVANTH (2021A7PS0236H).                          | 513 |
| PS-II STATION : SINGLESTORE INDIA PVT LTD,HYDERABAD                   | 514 |
| FACULTY NAME: SAI KISHOR JANGITI .                                    | 514 |
| STUDENT NAME: MANAN GUPTA (2021A7PS2091H).                            | 514 |
| PS-II STATION : SKYDO ,BENGALURU                                      | 515 |
| FACULTY NAME: SANDEEP KAYASTHA .                                      | 515 |
| STUDENT NAME: PRASHANT UPRETI (2023H1540814P)                         | 515 |
| PS-II STATION : SKYDO ,BENGALURU                                      | 517 |
| FACULTY NAME: SANDEEP KAYASTHA .                                      | 517 |
| STUDENT NAME: ELDHO JOHN MENACHERY (2023H1540837P).                   | 517 |
| PS-II STATION : SNIVAA CONSULTING ENGINEERS ,PUNE                     | 518 |
| FACULTY NAME: MUTHUKUMAR G .                                          | 518 |
| STUDENT NAME: KURAKULA UDAYA MADHU (2023H1430047P)                    | 518 |
| PS-II STATION : SNOWBALL CAPITAL INVESTMENT ADVISORS LLP ,HYDERABAD   | 519 |
| FACULTY NAME: ANJANI SRIKANTH KOKA .                                  | 519 |
| STUDENT NAME: YASH AGRAWAL . (2021A1PS2119P)                          | 519 |
| PS-II STATION : SONA COMSTAR,GURUGRAM.                                | 520 |
| FACULTY NAME: SAMEER GUPTA .                                          | 520 |
| STUDENT NAME: BELSARE PRATIK PRASHANT (2023H1060157H)                 | 520 |
| PS-II STATION : SRI VENKATACHALAPATHY CONSTRUCTIONS PVT.LTD., CHENNAI | 521 |
| FACULTY NAME: MUTHUKUMAR G .                                          | 521 |
| STUDENT NAME: NARKULA SRIKAR REDDY . (2021A2PS2624P)                  | 521 |
| PS-II STATION : ST MICRO - DEMANDINGWARE ,GREATER NOIDA               | 522 |

|                                                                                                                       |     |
|-----------------------------------------------------------------------------------------------------------------------|-----|
| FACULTY NAME: RAJESH KUMAR TIWARY .....                                                                               | 522 |
| STUDENT NAME: NIMIT JAIN . (2020B4A31995P) .....                                                                      | 522 |
| PS-II STATION : STAMPMYVISA- NON IT ,BENGALURU .....                                                                  | 523 |
| FACULTY NAME: RAMESH VENKATRAMAN .....                                                                                | 523 |
| STUDENT NAME: M VARUN SRINIVAS (2020B3AA0497H).....                                                                   | 523 |
| PS-II STATION : SYNEOS HEALTH, GURUGRAM .....                                                                         | 524 |
| FACULTY NAME: BHARATHI R .....                                                                                        | 524 |
| STUDENT NAME: KASHISH GARG (2023H1530211P).....                                                                       | 524 |
| PS-II STATION : SYNERGIZ GLOBAL SERVICES PVT LTD ,HYDERABAD.....                                                      | 525 |
| FACULTY NAME: K VENKATASUBRAMANIAN . .....                                                                            | 525 |
| STUDENT NAME: CHINMAY ADITYA PATNAIK (2020B2A22600H) .....                                                            | 525 |
| PS-II STATION : TATA INSTITUTE OF FUNDAMENTAL RESEARCH ,HYDERABAD.....                                                | 526 |
| FACULTY NAME: RAKESHA CHANDRA DASH . .....                                                                            | 526 |
| STUDENT NAME: MEHEK GARG (2023H1290006P) .....                                                                        | 526 |
| PS-II STATION : TECHTURE STRUCTURES,INDORE .....                                                                      | 527 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA .....                                                                           | 527 |
| STUDENT NAME: DARSHAN SONI (2023H1430033H).....                                                                       | 527 |
| PS-II STATION : TECHTURE STRUCTURES,INDORE .....                                                                      | 528 |
| FACULTY NAME: MAHESH KUMAR HAMIRWASIA .....                                                                           | 528 |
| STUDENT NAME: PARTH BAGHMAR (2023H1430041P).....                                                                      | 528 |
| PS-II STATION : TECTONIC TECHNOLOGIES INC - SOFTWARE ENGINEERING ,BENGALURU FACULTY<br>NAME: PRADHEEP KUMAR K . ..... | 529 |
| STUDENT NAME: HITARTH KANKAR (2021A7PS0320H) .....                                                                    | 529 |
| PS-II STATION : TELUS INTERNATIONAL - SOLUTION ENGINEERING ,BENGALURU .....                                           | 530 |
| FACULTY NAME: S.P.VIMAL . .....                                                                                       | 530 |
| STUDENT NAME: NIRANJAN SAMIR CHAUDHARI . (2020B5A30929P) .....                                                        | 530 |
| PS-II STATION : TELUS INTERNATIONAL - SOLUTION ENGINEERING ,BENGALURU .....                                           | 531 |
| FACULTY NAME: S.P.VIMAL . .....                                                                                       | 531 |
| STUDENT NAME: ANUSHRI KATIYAR (2021A8PS3192H).....                                                                    | 531 |
| PS-II STATION : TELUS INTERNATIONAL - MACHINE LEARNING ,BENGALURU .....                                               | 532 |
| FACULTY NAME: S.P.VIMAL . .....                                                                                       | 532 |
| STUDENT NAME: VALETI KUMARAKRISHNA (2021A7PS2617G).....                                                               | 532 |
| PS-II STATION : TELUS INTERNATIONAL - PRODUCT MANAGEMENT FOR AI, BENGALURU FACULTY<br>NAME: S.P.VIMAL .....           | 532 |
| STUDENT NAME: KARAN MEHTA . (2020B2A11950P).....                                                                      | 532 |
| PS-II STATION : TELUS INTERNATIONAL - PRODUCT MANAGEMENT FOR AI ,BENGALURU FACULTY<br>NAME: S.P.VIMAL .....           | 533 |

|                                                                                   |     |
|-----------------------------------------------------------------------------------|-----|
| STUDENT NAME: RITISH PURI . (2020B5A41664P) .....                                 | 533 |
| PS-II STATION : TELUS INTERNATIONAL - PROMPT ENGINEERS - LOGIC AND REASONING..... | 534 |
| ,BENGALURU.....                                                                   | 534 |
| FACULTY NAME: S.P.VIMAL . .....                                                   | 534 |
| STUDENT NAME: YASH CHAUHAN (2020B4A81683G).....                                   | 534 |
| PS-II STATION : TELUS INTERNATIONAL - SOFTWARE ENGINEERING ,BENGALURU .....       | 535 |
| FACULTY NAME: S.P.VIMAL . .....                                                   | 535 |
| STUDENT NAME: DARSHAN KIRANKUMAR BAGRECHA (2020A8B52153H).....                    | 535 |
| PS-II STATION : TELUS INTERNATIONAL - SOFTWARE ENGINEERING ,BENGALURU .....       | 536 |
| FACULTY NAME: S.P.VIMAL . .....                                                   | 536 |
| STUDENT NAME: VIRAJ MATHUR (2020B4A30956H) .....                                  | 536 |
| PS-II STATION : TENSTORRENT ,BENGALURU .....                                      | 538 |
| FACULTY NAME: SHREE PRASAD M .....                                                | 538 |
| STUDENT NAME: YASH RAHUL CHOGLA . (2021A3PS2387P).....                            | 538 |
| PS-II STATION : TENSTORRENT ,BENGALURU .....                                      | 539 |
| FACULTY NAME: SHREE PRASAD M .....                                                | 539 |
| STUDENT NAME: VIKAS DHANANJAY DUBEY (2021A8PS2031G).....                          | 539 |
| PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU .....                       | 539 |
| FACULTY NAME: SATHISHA SHET K . .....                                             | 539 |
| STUDENT NAME: MANJIRA ROYCHOWDHURY (2020B1A31640H) .....                          | 539 |
| PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU .....                       | 540 |
| FACULTY NAME: SATHISHA SHET K . .....                                             | 540 |
| STUDENT NAME: VIDHI MEHTA (2020B1A32479H).....                                    | 540 |
| PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU .....                       | 541 |
| FACULTY NAME: SATHISHA SHET K . .....                                             | 541 |
| STUDENT NAME: TAHA YUSUF RAJA . (2020B5AA0910P).....                              | 541 |
| PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU .....                       | 542 |
| FACULTY NAME: SATHISHA SHET K . .....                                             | 542 |
| STUDENT NAME: GRANDHALA SRI SAI HARSHITH (2020B5AA2240H) .....                    | 542 |
| PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU .....                       | 542 |
| FACULTY NAME: SATHISHA SHET K . .....                                             | 542 |
| STUDENT NAME: ARAN SETH (2021A3PS1321G).....                                      | 542 |
| PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU .....                       | 543 |
| FACULTY NAME: SATHISHA SHET K . .....                                             | 543 |
| STUDENT NAME: RAUNAK NIGAM (2021A3PS2841H).....                                   | 543 |
| PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU .....                       | 545 |

|                                                                  |     |
|------------------------------------------------------------------|-----|
| FACULTY NAME: SATHISHA SHET K .                                  | 545 |
| STUDENT NAME: RR ROSHAN KRISHNA (2021AAPS2656H)                  | 545 |
| PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU            | 545 |
| FACULTY NAME: SATHISHA SHET K .                                  | 545 |
| STUDENT NAME: APOORVA JAIN (2021AAPS2858G)                       | 545 |
| PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU            | 546 |
| FACULTY NAME: SATHISHA SHET K .                                  | 546 |
| STUDENT NAME: PAWAR KIRAN GANPAT (2023H1230139G)                 | 546 |
| PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU          | 547 |
| FACULTY NAME: SATHISHA SHET K .                                  | 547 |
| STUDENT NAME: DEEPIKA PANT . (2020B2A31158P)                     | 547 |
| PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU          | 548 |
| FACULTY NAME: SATHISHA SHET K .                                  | 548 |
| STUDENT NAME: ASHISH YAKKALA (2020B4AA0489H)                     | 548 |
| PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU          | 548 |
| FACULTY NAME: SATHISHA SHET K .                                  | 548 |
| STUDENT NAME: SIDDARTH ANNAMANENI (2021A3PS1551H)                | 548 |
| PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU          | 549 |
| FACULTY NAME: SATHISHA SHET K .                                  | 549 |
| STUDENT NAME: PATHAPATI SUBBU VARUN SAI (2021A3PS2487H)          | 549 |
| PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU          | 550 |
| FACULTY NAME: SATHISHA SHET K .                                  | 550 |
| STUDENT NAME: AISHWARYA SUDIPTO NAG (2021AAPS1988G)              | 550 |
| PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU          | 551 |
| FACULTY NAME: SATHISHA SHET K .                                  | 551 |
| STUDENT NAME: SOHAM PAUL (2023H1400126P)                         | 551 |
| PS-II STATION : TEXAS INSTRUMENTS - EMBEDDED SOFTWARE ,BENGALURU | 552 |
| FACULTY NAME: SATHISHA SHET K .                                  | 552 |
| STUDENT NAME: SPARSH MITTAL (2020A3PS1762G)                      | 552 |
| PS-II STATION : TEXAS INSTRUMENTS - EMBEDDED SOFTWARE ,BENGALURU | 552 |
| FACULTY NAME: SATHISHA SHET K .                                  | 552 |
| STUDENT NAME: SARANSH GAUTAM . (2020B4A31476P)                   | 552 |
| PS-II STATION : TEXAS INSTRUMENTS - EMBEDDED SOFTWARE ,BENGALURU | 553 |
| FACULTY NAME: SATHISHA SHET K .                                  | 553 |
| STUDENT NAME: JAY GOYAL . (2021A7PS2418P)                        | 553 |
| PS-II STATION : TEXAS INSTRUMENTS - EMBEDDED SOFTWARE ,BENGALURU | 554 |



|                                                                                |     |
|--------------------------------------------------------------------------------|-----|
| FACULTY NAME: SATHISHA SHET K .                                                | 554 |
| STUDENT NAME: SHANTANU KAMALAKAR DESHMUKH (2021AAPS2422G)                      | 554 |
| PS-II STATION : TEXAS INSTRUMENTS -- TECHNICAL SALES REPRESENTATIVE ,BENGALURU | 555 |
| FACULTY NAME: SATHISHA SHET K .                                                | 555 |
| STUDENT NAME: AKSHAT GARG . (2021AAPS0261P)                                    | 555 |
| PS-II STATION : TITAN COMPANY LIMITED ,HOSUR                                   | 555 |
| FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE                                       | 555 |
| STUDENT NAME: JOYEETA NATH . (2021A1PS2166P)                                   | 555 |
| PS-II STATION : TOWER RESEARCH CAPITAL, NEW YORK                               | 556 |
| FACULTY NAME: NEHA VINAYAK                                                     | 556 |
| STUDENT NAME: ANISH ASHISH KASEGAONKAR . (2020B3A70785P)                       | 556 |
| PS-II STATION : TRANE TECHNOLOGIES, BENGALURU                                  | 557 |
| FACULTY NAME: RAGHURAMAN S .                                                   | 557 |
| STUDENT NAME: DESHMUKH CHAITANYA MILIND (2023H1410077G)                        | 557 |
| PS-II STATION : TRANE TECHNOLOGIES, BENGALURU                                  | 559 |
| FACULTY NAME: RAGHURAMAN S .                                                   | 559 |
| STUDENT NAME: VISHNU DAS M (2023H1410078G)                                     | 559 |
| PS-II STATION : UBER - SOFTWARE ENGINEER, BENGALURU ,BENGALURU                 | 560 |
| FACULTY NAME: AKSHAYA G .                                                      | 560 |
| STUDENT NAME: ARYAMAN CHAUHAN . (2020B5A72006P)                                | 560 |
| PS-II STATION : UBS - REPORTING AND ANALYTICS, PUNE                            | 560 |
| FACULTY NAME: NIRANJAN SWAIN                                                   | 560 |
| STUDENT NAME: SAYAN JAYANTA RAY (2020B2A32496H)                                | 560 |
| PS-II STATION : UBS- FINANCE LIQUIDITY AND FUNDING MODELLING, POWAI            | 561 |
| FACULTY NAME: NIRANJAN SWAIN                                                   | 561 |
| STUDENT NAME: CHETAN VISHNU MAREM (2020B1A42399H)                              | 561 |
| PS-II STATION : UBS- LIQUIDITY AND CONTROL (FINANCE), PUNE                     | 562 |
| FACULTY NAME: NIRANJAN SWAIN                                                   | 562 |
| STUDENT NAME: SIDDHARTH JAIN . (2020B2A41955P)                                 | 562 |
| PS-II STATION : UBS- LIQUIDITY AND CONTROL (FINANCE), PUNE                     | 562 |
| FACULTY NAME: NIRANJAN SWAIN                                                   | 562 |
| STUDENT NAME: BHAMARE YASH PRASHANT (2020B2A80760G)                            | 562 |
| PS-II STATION : UBS- QRM, MUMBAI                                               | 563 |
| FACULTY NAME: NIRANJAN SWAIN                                                   | 563 |
| STUDENT NAME: HARI ADITYA CHAVALI (2020B3A10596H)                              | 563 |
| PS-II STATION : UBS- QRM, MUMBAI                                               | 564 |

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| FACULTY NAME: NIRANJAN SWAIN .....                                 | 564 |
| STUDENT NAME: GAURAV MISHRA . (2020B3A70917P) .....                | 564 |
| PS-II STATION : UBS- RAS (FINANCE), PUNE.....                      | 566 |
| FACULTY NAME: NIRANJAN SWAIN .....                                 | 566 |
| STUDENT NAME: RISHABH TALWAR (2021A4PS3070H).....                  | 566 |
| PS-II STATION : UDAAN ,BENGALURU .....                             | 567 |
| FACULTY NAME: RAMESH VENKATRAMAN . .....                           | 567 |
| STUDENT NAME: KOSURI GYAN SUMANYU (2020B5A42176H) .....            | 567 |
| PS-II STATION : UST- SI DIGITAL TRANSFORM ,THIRUVANANTHAPURAM..... | 568 |
| FACULTY NAME: SINDHU S . .....                                     | 568 |
| STUDENT NAME: ADHIRAJ GUPTA (2020B2A11998G).....                   | 568 |
| PS-II STATION : VINJEY SOFTWARE SYSTEMS PVT. LTD., BENGALURU ..... | 568 |
| FACULTY NAME: SATYA SUDHAKAR YEDLAPALLI . .....                    | 568 |
| STUDENT NAME: UDAYAGIRI ADISHREYES KUMAR . (2020B5AA0915P).....    | 568 |
| PS-II STATION : WALMART ,BENGALURU .....                           | 569 |
| FACULTY NAME: SHWETHA VITTAL .....                                 | 569 |
| STUDENT NAME: PRAJWAL NAKIL . (2020B1AA1379P) .....                | 569 |
| PS-II STATION : WALMART ,BENGALURU .....                           | 570 |
| FACULTY NAME: SHWETHA VITTAL .....                                 | 570 |
| STUDENT NAME: ANIMESH KUMAR AGRAWAL (2020B4A32030H) .....          | 570 |
| PS-II STATION : WALMART ,BENGALURU .....                           | 570 |
| FACULTY NAME: SHWETHA VITTAL .....                                 | 570 |
| STUDENT NAME: SUBHAM CHAKRAVORTY (2021A3PS2702G) .....             | 570 |
| PS-II STATION : WALMART ,BENGALURU .....                           | 571 |
| FACULTY NAME: SHWETHA VITTAL .....                                 | 571 |
| STUDENT NAME: ARIN NIGAM (2021A3PS2877G) .....                     | 571 |
| PS-II STATION : WALMART ,BENGALURU .....                           | 572 |
| FACULTY NAME: SHWETHA VITTAL .....                                 | 572 |
| STUDENT Name: ANUSHKA AGRAWAL (2021A3PS2881G).....                 | 572 |
| PS-II STATION : WALMART ,BENGALURU .....                           | 573 |
| FACULTY NAME: SHWETHA VITTAL .....                                 | 573 |
| STUDENT NAME: MILIND GUPTA (2021A3PS2981H).....                    | 573 |
| PS-II STATION : WALMART ,BENGALURU .....                           | 574 |
| FACULTY NAME: SHWETHA VITTAL .....                                 | 574 |
| STUDENT NAME: ATHARVA VINOD DASHORA (2021A7PS0127H).....           | 574 |
| PS-II STATION : WALMART ,BENGALURU .....                           | 574 |

|                                                              |     |
|--------------------------------------------------------------|-----|
| FACULTY NAME: SHWETHA VITTAL .....                           | 574 |
| STUDENT NAME: KAMALESH RAM R (2021A7PS0286H) .....           | 574 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 575 |
| FACULTY NAME: SHWETHA VITTAL .....                           | 575 |
| STUDENT NAME: ABIRAM SANKAR MONAVARTHI (2021A7PS0329H) ..... | 575 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 576 |
| FACULTY NAME: SHWETHA VITTAL .....                           | 576 |
| STUDENT NAME: PATEL TEERTH VASANT (2021A7PS2090H) .....      | 576 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 577 |
| FACULTY NAME: SHWETHA VITTAL .....                           | 577 |
| STUDENT NAME: AVANI AGARWAL (2021A7PS2585G) .....            | 577 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 577 |
| FACULTY NAME: SHWETHA VITTAL .....                           | 577 |
| STUDENT NAME: KISLAY RANJAN NEE TANDON (2021A7PS2627G) ..... | 577 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 578 |
| FACULTY NAME: SHWETHA VITTAL .....                           | 578 |
| STUDENT NAME: PRANAV DEEPAK TANNA . (2021A7PS2685P) .....    | 578 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 579 |
| FACULTY NAME: SHWETHA VITTAL .....                           | 579 |
| STUDENT NAME: ARNAV ARVIND (2021A7PS2709H) .....             | 579 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 580 |
| FACULTY NAME: SHWETHA VITTAL .....                           | 580 |
| STUDENT NAME: HIMANSHU SINGH (2021A7PS2732G) .....           | 580 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 580 |
| FACULTY NAME: SHWETHA VITTAL .....                           | 580 |
| STUDENT NAME: NIKHIL KRISHNA RAVURI (2021A8PS0794H) .....    | 580 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 581 |
| FACULTY NAME: SHWETHA VITTAL .....                           | 581 |
| STUDENT NAME: RITVIK MITTAL . (2021A8PS2545P) .....          | 581 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 582 |
| FACULTY NAME: SHWETHA VITTAL .....                           | 582 |
| STUDENT NAME: VAIBHAV MITTAL (2021AAPS0737H) .....           | 582 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 583 |
| FACULTY NAME: SHWETHA VITTAL .....                           | 583 |
| STUDENT NAME: AYUSHMAN KAR (2021AAPS1983H) .....             | 583 |
| PS-II STATION : WALMART ,BENGALURU .....                     | 584 |

|                                                                                                                         |     |
|-------------------------------------------------------------------------------------------------------------------------|-----|
| FACULTY NAME: SHWETHA VITTAL .....                                                                                      | 584 |
| STUDENT NAME: RAJA KUMAR (2023H1030059G) .....                                                                          | 584 |
| PS-II STATION : WAYFAIR GLOBAL TECHNOLOGY PVT. LTD-MARKETING, DATA AND ML PLATFORM<br>ENGINEERING TEAM ,BENGALURU ..... | 585 |
| FACULTY NAME: PRADHEEP KUMAR K .....                                                                                    | 585 |
| STUDENT NAME: HARSHIT AGARWAL (2021A7PS0247H) .....                                                                     | 585 |
| PS-II STATION : WCB ROBOTICS INDIA PVT LTD - MECHANICAL ,HYDERABAD .....                                                | 586 |
| FACULTY NAME: RAKESHA CHANDRA DASH . .....                                                                              | 586 |
| STUDENT NAME: RAMANUJ PRALHAD SOMANI (2021A4PS0311G).....                                                               | 586 |
| PS-II STATION : WCB ROBOTICS INDIA PVT. LTD. - ELECTRONICS ,HYDERABAD .....                                             | 587 |
| FACULTY NAME: SANJAY VIDHYADHARAN .....                                                                                 | 587 |
| STUDENT NAME: ADARSH GOPALAKRISHNAN (2021A8PS1755G) .....                                                               | 587 |
| Student Write-up.....                                                                                                   | 587 |
| PS-II STATION : WELLS FARGO ,BENGALURU .....                                                                            | 588 |
| FACULTY NAME: NIRANJAN SWAIN .....                                                                                      | 588 |
| STUDENT NAME: ASHUTOSH JOSHI (2023H1540838P) .....                                                                      | 588 |
| PS-II STATION : WILP - ADAS , ARTIFICIAL & COMPUTATION, HYDERABAD ,HYDERABAD .....                                      | 589 |
| FACULTY NAME: RAJIV RANJAN GUPTA . .....                                                                                | 589 |
| STUDENT NAME: BURUGU VENKATA SAKETHA REDDY (2021A4PS1986H).....                                                         | 589 |
| PS-II STATION : WILP - ADAS , ARTIFICIAL & COMPUTATION, HYDERABAD ,HYDERABAD .....                                      | 590 |
| FACULTY NAME: RAJIV RANJAN GUPTA . .....                                                                                | 590 |
| STUDENT NAME: ADVAIT PAWAN DESHMUKH (2021A4PS2825G) .....                                                               | 590 |
| PS-II STATION : WILP - ADDITIVE MANUFACTURING, HYDERABAD ,HYDERABAD .....                                               | 591 |
| FACULTY NAME: PANCHAGNULA JAYAPRAKASH SHARMA .....                                                                      | 591 |
| STUDENT NAME: PRAKHAR SRIVASTAVA . (2019ABPS0624P).....                                                                 | 591 |
| PS-II STATION : WILP - COMMUNICATION LAB, HYDERABAD ,HYDERABAD .....                                                    | 592 |
| FACULTY NAME: SUPARNA CHAKRABORTY .....                                                                                 | 592 |
| STUDENT NAME: AYUSH SRIVASTAVA . (2020B5A20959P) .....                                                                  | 592 |
| PS-II STATION : WILP - COMMUNICATION LAB, HYDERABAD ,HYDERABAD .....                                                    | 593 |
| FACULTY NAME: SUPARNA CHAKRABORTY .....                                                                                 | 593 |
| STUDENT NAME: SOHAM ANAND KULKARNI (2021A8PS2756G) .....                                                                | 593 |
| PS-II STATION : WILP - CONTROL SYSTEMS,IC ENGINES, RSM,HYDERABAD ,HYDERABAD .....                                       | 594 |
| FACULTY NAME: RAGHURAMAN S . .....                                                                                      | 594 |
| STUDENT NAME: PAKKIRU GUNA SHEKHAR REDDY (2020B3A41510G).....                                                           | 594 |
| PS-II STATION : WILP - ELECTRIC AND HYBRID LAB ,HYDERABAD .....                                                         | 595 |
| FACULTY NAME: MADHURI BAYYA .....                                                                                       | 595 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| STUDENT NAME: MANNEPALLI VYSHNAVI SWETHA (2019AAPS0284G).....   | 595 |
| PS-II STATION : WILP - ELECTRIC AND HYBRID LAB ,HYDERABAD ..... | 596 |
| FACULTY NAME: MADHURI BAYYA .....                               | 596 |
| STUDENT NAME: SOMNATH (2023H1240062H).....                      | 596 |
| PS-II STATION : WILP - IOT,HYDERABAD ,HYDERABAD .....           | 597 |
| FACULTY NAME: PRAKRUTHI HAREESH .....                           | 597 |
| STUDENT NAME: KESANA.VEERA SIVA (2023H1060118G).....            | 597 |
| PS-II STATION : WILP - IOT,HYDERABAD ,HYDERABAD .....           | 598 |
| FACULTY NAME: PRAKRUTHI HAREESH .....                           | 598 |
| STUDENT NAME: PRINCE KUMAR (2023H1400109G).....                 | 598 |
| PS-II STATION : WISSEN INFOTECH ,BENGALURU.....                 | 600 |
| FACULTY NAME: RAJA VADHANA PRABHAKAR .....                      | 600 |
| STUDENT NAME: AMAN MALLIK (2021A7PS1807H) .....                 | 600 |
| PS-II STATION : WISSEN INFOTECH ,BENGALURU.....                 | 601 |
| FACULTY NAME: RAJA VADHANA PRABHAKAR .....                      | 601 |
| STUDENT NAME: ANKIT KUMAR (2023H1030076P).....                  | 601 |
| PS-II STATION : WISSEN INFOTECH ,BENGALURU.....                 | 602 |
| FACULTY NAME: RAJA VADHANA PRABHAKAR .....                      | 602 |
| STUDENT NAME: SHREYANK DUBEY (2023H1030081H) .....              | 602 |
| PS-II STATION : WISSEN INFOTECH ,BENGALURU .....                | 603 |
| FACULTY NAME: RAJA VADHANA PRABHAKAR .....                      | 603 |
| STUDENT NAME: DESAI NIHAR DHIRENDRAKUMAR (2023H1030093P) .....  | 603 |
| PS-II STATION : YUGABYTE, BENGALURU ,BENGALURU.....             | 603 |
| FACULTY NAME: RAJA VADHANA PRABHAKAR .....                      | 603 |
| STUDENT NAME: JASON AARON GOVEAS (2021A7PS0237H) .....          | 603 |
| PS-II STATION : YUGABYTE, BENGALURU ,BENGALURU .....            | 604 |
| FACULTY NAME: RAJA VADHANA PRABHAKAR .....                      | 604 |
| STUDENT NAME: AARYAN CHAUHAN (2021A7PS2595G).....               | 604 |
| PS-II STATION : YUGABYTE, BENGALURU .....                       | 605 |
| FACULTY NAME: RAJA VADHANA PRABHAKAR .....                      | 605 |
| STUDENT NAME: AASHIR TYAGI (2021A7PS3015H) .....                | 605 |
| PS-II STATION : ZEPTO ,BENGALURU.....                           | 606 |
| FACULTY NAME: LUCY J. GUDINO.....                               | 606 |
| STUDENT NAME: PATIL MANAS SUDHIR (2020B2A32020G) .....          | 606 |
| PS-II STATION : ZOMATO (GROFERS) ,GURGAON .....                 | 607 |
| FACULTY NAME: NEHA VINAYAK.....                                 | 607 |

STUDENT NAME: RATHI HARSH PRAFUL (2020B3A70794P)..... 607

**PS-II STATION: 1CLICKTECH GLOBAL SERVICES PVT. LTD., GURGAON**

**FACULTY NAME: GOPALAKRISHNAN VENKITESWARAN**

**STUDENT NAME: NITIN GAUTAM (2020B4A42132G)**

Student Write-up

**PS-II Project Title:** Software Development

**Short Summary of work done during PS-II:** During my six-month PS-II internship at 1Clicktech Global Services, I began by working on the Visitor Management System—adding small interface improvements, and creating a few reusable components to streamline user flows. I then moved on to my main project, a Jira-style Ticketing Platform, where I developed the frontend using React.js and Next.js with TypeScript, built reusable components, crafted responsive layouts with Tailwind CSS and Material-UI, and managed global application state with Redux. On the backend, I implemented and maintained RESTful APIs using Python and FastAPI, and designed the database schema in MySQL. In addition to development, I led testing and aspect management for two products (an HRMS and an LMS): I performed manual testing to uncover interface and workflow aspects, logged and prioritized defects, and then fixed those bugs in the UI using React, Next.js, and TypeScript—optimizing performance and enhancing the overall user experience. Throughout the process, I leveraged Git and CI/CD pipelines to automate builds and deployments, maintaining a reliable and efficient development workflow.

**Tool used (Development tools - H/w, S/w):** React.js, Next.js, TypeScript, Redux, Tailwind CSS, Material-UI, Python, FastAPI, Git, MySQL

**Objectives of the project:** Build Ticketing Platform

**Major Learning Outcomes:** React/Next.js, FastAPI, Redux state management, responsive UI design with Tailwind CSS and Material-UI, and Python REST API development, Swagger UI, Git, GitHub.

Details of Papers/patents: NA

**Brief Description of working environment, expectations from the company:** It was a great learning opportunity—technically the company offered hands-on experience and encouraged us to own end-to-end design and the work environment was positive and professional.

**Academic courses relevant to the project:** OOP, DSA, DBMS

**PS-II STATION: 1CLICKTECH GLOBAL SERVICES PVT. LTD., GURGAON**

**FACULTY NAME: GOPALAKRISHNAN VENKITESWARAN**

**STUDENT NAME: ANISH KUMAR MISHRA (2020B5AA0690H)**

Student Write-up

**PS-II Project Title:** AI Agent development with MCP

**Short Summary of work done during PS-II:** Created a chatbot for clients/users to use that can access api endpoints and db using its own intelligence using the model context protocol.

**Tool used (Development tools - H/w, S/w):** Python, alembic, RAG, MCP, idc

**Objectives of the project:** To impress clients that the company uses the latest tech.

**Major Learning Outcomes:** How to make a local/remote LLM take control of your API and database.

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** Pleasant environment. People working here are friendly and encouraging.

**Academic courses relevant to the project:** Yes

**PS-II STATION:** 73 STRINGS PVT. LTD., BENGALURU

**FACULTY NAME:** RAJA VADHANA PRABHAKAR

**STUDENT NAME:** SHUBHAM SHARMA (2020B2A42540H)

Student Write-up

**PS-II Project Title:** Product Management in Financial Valuations

**Short Summary of work done during PS-II:** The work revolved around developing features and enhancements for the existing products used by the organization. The work usually revolved around documenting PRDs, user stories, managing work among people who are part of the concerned project.

**Tool used (Development tools - H/w, S/w):** FIGMA, Excel, Miro

**Objectives of the project:** To develop features corresponding to financial valuations from a product standpoint

**Major Learning Outcomes:** Product Management, Finance, Valuations

**Details of Papers/patents:** None



**Brief Description of working environment, expectations from the company:** Work environment is great.

**Academic courses relevant to the project:** Finance Minor

**PS-II STATION:** A.T. KEARNEY CONSULTING (INDIA) PVT. LTD., GURGAON

**FACULTY NAME:** ANJANI SRIKANTH KOKA

**STUDENT NAME:** ADITI PRABHU (2020B2A12454H)

Student Write-up

**PS-II Project Title:** Process Excellence and Business Transformation

**Short Summary of work done during PS-II:** During my internship, I worked closely with a leading thermal power plant client, where I had complete ownership of three critical business processes under a broader process transformation and change management program. Acting as the single point of contact (POC) for the client on several fronts, I played a central role in ensuring seamless coordination between internal teams and client stakeholders. Another focus area was supporting and driving the IT workstream, where I contributed to streamlining system-level process interventions and aligning IT solutions with on-ground operational needs. I also led the end-to-end closure of numerous key initiatives, ensuring timely delivery, cross-functional alignment, and measurable impact. My role demanded significant client interaction. I independently facilitated multiple workshops and working sessions with functional teams and senior leadership at the plant. These sessions focused on capturing pain points, driving alignment on proposed solutions, and building buy-in for process changes.

**Tool used (Development tools - H/w, S/w):** MS Office, Power BI.

**Objectives of the project:** Standardization of the process, business transformation and growth.

**Major Learning Outcomes:** 1. Strong analytical thinking and structured opportunity-solving capabilities

2. Effective stakeholder engagement and relationship management

3. Deep process understanding within the energy and process industries

**Details of Papers/patents:** None

**Brief Description of working environment, expectations from the company:** The work was quite demanding due to its high impact, and I had to travel to the client site every week. Being on-site regularly helped me stay closely involved with the client and their operations. While the learning curve was steep, the team assigned to me was very supportive and always ready to help. I received regular feedback, which helped me improve quickly and handle responsibilities more confidently.

**Academic courses relevant to the project:** Principles of Management.

**PS-II STATION: ACCENTURE- DATA & AI INTERN, BENGALURU**

**FACULTY NAME: GAURAV NAGPAL**

**STUDENT NAME: PRAMENDRA KUMAR SINGH (2023H1540812P)**

Student Write-up

**PS-II Project Title:** Agentic AI for Sales

**Short Summary of work done during PS-II** I've built a comprehensive AI-powered sales pipeline monitoring system using CrewAI's multi-agent framework. The solution consists of six specialized agents that work together to analyze deal health and provide actionable insights. Core Architecture: Deal Fetcher Agent: Retrieves open opportunities from CRM data Activity Monitor Agent: Aggregates email/call logs and performs sentiment analysis Health Scorer Agent: Computes 0-100 health scores using activity recency, sentiment, forecast variance, and competitor flags Recommendation Agent: Generates next-best-action recommendations for at-risk deals Notifier Agent: Sends alerts via Slack/email and creates CRM follow-up tasks Summary Agent: Produces executive-ready reports for stakeholders Key Innovation: I added a conversational AI assistant that handles natural language queries about deals, generates reports, and maintains conversation context using FAISS embeddings. Users can ask questions like "Show me all deals in negotiation" or "What's the next best action for OPP-001?" and get intelligent responses. Technical Implementation: The system uses CSV-based mock data for deals, activities, forecast variance, and competitor flags. I built custom tools for CRM integration, sentiment analysis, knowledge base queries, and template rendering. The Streamlit interface provides both a pipeline execution view and an interactive chat interface. The solution demonstrates how multi-agent AI can automate complex sales workflows while providing conversational access to insights, making it practical for sales teams to monitor deal health and take proactive actions.

**Tool used (Development tools - H/w, S/w):** Agentic AI frameworks, GPTs.

**Objectives of the project:** Developing a PoV for B2B sales with Agentic AI implementation.

**Major Learning Outcomes:** Was able to build my own agentic AI solution for Deal Health monitoring and successfully developed the required artefacts for client pitching.

**Details of Papers/patents:** None

**Brief Description of working environment, expectations from the company:** The working environment at Accenture Strategy & Consulting India is characterized by a collegial, collaborative, and supportive culture within a tight-knit community. Flexible work arrangements including work from home facility and flexible hours, though project-dependent.

**Academic courses relevant to the project:** Business Analytics, ML, AI, Agentic AI frameworks.

**PS-II STATION:** ADITYA BIRLA CAPITAL LTD., MUMBAI

**FACULTY NAME:** BANDI VENKATA PRASAD

**STUDENT NAME:** ARJUN KATWAL (2023H1540842P)

Student Write-up

**PS-II Project Title:** Credit Audit Analytics( Product - Lease Against Property)

**Short Summary of work done during PS-II:** The project focused on Credit Audit Analytics for the Lease Against Property (LAP) loan product, aimed at supporting the internal audit team in identifying audit risks, inefficiencies, and out-of-policy outliers in credit-related transactions.

**Tool used (Development tools - H/w, S/w):** Power BI, Python, SQL

**Objectives of the project:** Analytics in the credit related dataset

**Major Learning Outcomes:** Audit

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** The working environment at Aditya Birla Capital was very positive and supportive. The team was welcoming, and I always felt comfortable asking questions or seeking help when needed. The atmosphere encouraged learning and growth, and I appreciated the open communication within the team. Everyone was approachable and cooperative, which made it easier to adapt and stay motivated.

**Academic courses relevant to the project:** All the technical subject like Excel, PowerBI, DWS, Python.

**PS-II STATION:** ADITYA BIRLA DIGITAL FASHION VENTURES – (TMRW HOUSE OF BRANDS) - FRONTEND, BENGALURU

**FACULTY NAME:** K VENKATASUBRAMANIAN

**STUDENT NAME:** KODAM ROHIT KISAN (2020B3A71141G)

Student Write-up

**PS-II Project Title:** Ecommerce Web Development

**Short Summary of work done during PS-II:** I started my work by working on a few brands which were in shopify stack, as i previously had development knowledge i picked up the tasks pretty

fast then I was given tasks on their main brand Bewakoof which is a full stack custom website i worked on its frontend in Nextjs, as I wanted to learn backend i was later given Custom Backend which is in Nestjs and then I was given full stack projects. I proved my skills in first week of my 1 year internship and soon I was working like a full time employee training other interns, Reviewing their work and mentoring them. In a nutshell it was a fulfilling experience for me.

**Tool used (Development tools - H/w, S/w):** Shopify, NestJS, NextJS , ReactJS, JS, TS.

**Objectives of the project:** Make Features on Ecommerce website to improve user conversion and AOV.

**Major Learning Outcomes:** Learnt to work on a industry level codebase in collaboration with a big team. Started as a frontend intern I wanted to learn backend and I got the opportunity to do so after proving my skills in frontend.

**Details of Papers/patents:** No Papers/Patents

**Brief Description of working environment, expectations from the company:** Good working environment and work life balance team respects work-life balance outside working hours, and on weekends. Helpful seniors and will help you to learn and understand the concepts or edge cases. There is immense scope to learn if you are up for it and you would be given opportunities if you prove your worth in your work ethics.

**Academic courses relevant to the project:** Yes

**PS-II STATION: ADITYA BIRLA SCIENCE & TECHNOLOGY COMPANY (ABSTC) PVT. LTD., MUMBAI**  
**FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE**  
**STUDENT NAME: N GEETHA MADHURI (2023H1010015H)**

Student Write-up

**PS-II Project Title:** Optimization of vanadium redox flow batteries

**Short Summary of work done during PS-II:** During my internship, I worked on the development and performance evaluation of Vanadium Redox Flow Batteries (VRFB), a promising energy storage technology for large-scale applications. My main tasks included preparing vanadium electrolyte solutions, conducting charge-discharge cycles, and analyzing battery performance metrics such as voltage efficiency, energy efficiency, and capacity retention. I was involved in setting up the experimental apparatus, maintaining consistent operational conditions, and troubleshooting during testing. I recorded and interpreted electrochemical data using tools like Excel. We also explored the impact of different parameters like flow rate, electrolyte concentration, and membrane type on the overall performance. This internship strengthened

my understanding of electrochemical energy systems, improved my skills in data analysis and lab protocols, and gave me practical insight into sustainable energy storage solutions.

**Tool used (Development tools - H/w, S/w):** Potentiostat, Peristaltic pump, UV-Vis spectrophotometer, Analytical balance, pH meter, Conductivity meter, Multimeter, Excel, OriginLab

**Objectives of the project:** To understand the working principles and design of Vanadium Redox Flow Batteries (VRFB). To gain hands-on experience in conducting electrochemical experiments and analyzing performance data. To apply academic knowledge in a practical research environment. To develop technical reporting, documentation, and data interpretation skills. To improve teamwork, communication, and professional conduct in a lab setting.

**Major Learning Outcomes:** Worked on performance analysis of Vanadium Redox Flow Batteries. Conducted charge-discharge testing, analyzed electrochemical behavior, and studied the effects of material and system parameters on efficiency and stability.

**Details of Papers/patents:** No publications or patents were generated during the course of the internship.

**Brief Description of working environment, expectations from the company:** The working environment during my internship was structured, research-focused, and collaborative. I was part of a team engaged in experimental studies on Vanadium Redox Flow Batteries (VRFB), with access to well-equipped labs and support from experienced mentors. The atmosphere encouraged independent thinking while ensuring guidance was available when needed.

Regular discussions with the supervisor helped clarify goals and align tasks with the overall project objectives. The workspace promoted safety, discipline, and timely documentation of results.

From the company, the expectations were to approach the project with sincerity, maintain accuracy in lab work, and contribute meaningfully to the data collection and analysis process. I was also expected to adhere to deadlines, maintain lab records, and communicate progress effectively. Overall, the environment fostered both learning and accountability, providing a valuable hands-on research experience.

**Academic courses relevant to the project:** Electrochemical Engineering, Energy Storage Technologies, Material Science and Engineering, Chemical Reaction Engineering, Transport Phenomena.

**PS-II STATION: AGROSTAR, PUNE**

**FACULTY NAME: BANDI VENKATA PRASAD**

**STUDENT NAME: TANUJ MAKARAND VAIDYA (2021A1PS2818G)**

Student Write-up

## **PS-II Project Title: Annual Operating Plan**

**Short Summary of work done during PS-II:** Agrostar performs exercise of AOP making before start of each financial year which helps them to understand the next year requirements from a supply point of view as well as to understand and drive overall growth of company. The key aspect of this exercise is to consolidate all the expected sales data for the upcoming fiscal year entered by our territory managers at product and state level. For the AOP of FY26 I was assigned to execute this consolidation. I assimilated a standard format consisting of growth, requirement of different products as well as the revenue they will generate in a month-on-month fashion. These summary sheets were made to reflect organization's gross revenue for both B2B and B2C channels as well as for each of Agrostar's operating state. Marketing team also performs the exercise of AOP making which serves as a guidance for them for the resource planning and execution of all the different marketing activities throughout the year. Correct distribution of marketing activities on product-level as well as on state-level plays a crucial role in the success of marketing activities. This distribution needs keen knowledge of the current trend in agricultural field as well as quite a few intricate logics. Using the experience of my team having agricultural background and my ability to incorporate their knowledge into logics which helped the distribution, a micro-level executional dashboard was made which is making it very easy for team for the actual execution and not waste time in manual intervention.

**Tool used (Development tools - H/w, S/w):** Google Sheets, BigQuery (SQL)

**Objectives of the project:** 1. Consolidation of Bottoms up Annual operating Plan  
2. Preparation marketing annual operating plan

**Major Learning Outcomes:** 1. Importance of Annual operating plan for business success and real time progress monitoring.  
2. Data visualization and presentation  
3. Crop agronomy insights

**Details of Papers/patents:** N/A

**Brief Description of working environment, expectations from the company:** Working environment at Agrostar is very nice. The onboarding was smooth. Also the seniors here are very helpful and motivating.

**Academic courses relevant to the project:** 1. Fundamentals of finance and accounting  
2. Financial management  
3. Business analysis and valuation

**PS-II STATION: AGROSTAR, PUNE**

**FACULTY NAME: BANDI VENKATA PRASAD**

**STUDENT NAME: ANISHA CHERIAN (2023H1030062G)**

Student Write-up

**PS-II Project Title: Streamlining Adhoc**

**Short Summary of work done during PS-II:** The Adhoc and MAXX Placement Model is a performance-driven system to optimize credit allocation and product placement across retail partners. It aims to reduce return rates, boost sales, and ensure efficient inventory flow. The MAXX Placement dynamically adjusts product visibility based on real-time sales, demand, and seasonality—prioritizing high-performing products and partners. The Adhoc Model allocates credit using a composite score built from key KPIs: return rate, payment behavior, and sales growth. Partners with better scores receive more exposure and product access, while underperformers face tighter credit controls. A Recon Score, though in progress, is designed to reflect real-time credit risk. The model is built in BigQuery with Google Sheets as the user interface, balancing technical strength with operational ease. Overall, the model enables smarter, data-backed decisions to drive revenue and reduce operational risk.

**Tool used (Development tools - H/w, S/w):** App scripts, looker studio, google sheet, big query, excel, clever tap

**Objectives of the project:** To streamline coupon creation for farmers so as to reduce cost and streamline promotion usage. Also using Maxx product placement, risk analysis is done.

**Major Learning Outcomes:** How business run in an organization and how adhoc coupon analysis impact on revenue of organization. Also how product placement helps in revenue growth and reduce returns.

**Details of Papers/patents: None**

**Brief Description of working environment, expectations from the company:** The working environment is friendly, supportive, and focused on learning and growth. Team members help each other, and everyone's ideas are heard and valued. There's a strong focus on using data to make smart decisions, but guidance is always available when needed. The company encourages taking ownership, being curious, and working together to solve opportunities. It's a place where trying new things is appreciated, and continuous improvement is part of the culture. Expectations are clear, but there's always room to ask questions and grow along the way.

**Academic courses relevant to the project: Yes**

**PS-II STATION: AGROSTAR, PUNE**

**FACULTY NAME: BANDI VENKATA PRASAD**

**STUDENT NAME: METTUPALLE CHINNAIAHGARI SAI SUHAS REDDY (2023H1030086H)**

Student Write-up

**PS-II Project Title:** Analyzing User Engagement, Retention and Sales Campaign Impact in the Farmer App

**Short Summary of work done during PS-II:** In the first initial Days the work is based on understanding the different tables that are used by the Team to Analyze the farmers behavoi in the Farmer App. As my team is working on the Farmer App Analytics my tasks involved in pulling out the data form the Big-Query and Analyzing the data over the Google Sheets. Firstly, I worked on the Uninstall rate, New Farmer Retention, Instant Discount Metrics, later the worked shifter towards the schemes such as finding the insights through the personalized notifications and understanding the user behaviours in sales schemes such as Flash Sale and the Kharif Instant Discount Sale.

**Tool used (Development tools - H/w, S/w):** Google Big Querhy, Google Sheets, Sql, Clavertap, Looker Studio.

**Objectives of the project:** To analyze user behavior, engagement, and retention in the Farmer App . To evaluate the role of engagement features like quizzes, content, and product interactions in driving retention. To assess the effectiveness of personalized notifications, flash sales, and partner-led campaigns. To provide actionable insights for optimizing user lifecycle, from onboarding to long-term retention.

**Major Learning Outcomes:** The project provided a real-world understanding of how tech and data can empower farmers. How to boost the DAU(Daily Active Users) , MAU(Monthly Active Users) with the different sales and Marketing Strategies like Instant discount , Flash sale and Kharif I

**Details of Papers/patents:** No Patents / Papers

**Brief Description of working environment, expectations from the company:** All the People in the company are always very helpful. Working environment is fine. Expectation from their side is willingness to Learn in the first initial Days where they will give time for us to adjust and understand with the tools and the Data that are being used by the team. Later we are expected to be working in an Adhoc based working style, where we are expected to do things in a faster yet more accurate way.

**Academic courses relevant to the project:** There are few Academic Courses such as Data Warehousing and Advanced Databases which were relevant for my project.



**PS-II STATION: ALLEGRO MICRO SYSTEMS, PUNE**  
**FACULTY NAME: MANOJ SUBHASH KAKADE**  
**STUDENT NAME: ANAGH ADITYA (2021A3PS1567H)**

Student Write-up

**PS-II Project Title:** Current Sensor ICs Mixed-Signal Verification Methodology & Implementation

**Short Summary of work done during PS-II:** Underwent various training sessions regarding the tools used in the industry, product definition and working and mixed-signal verification flow and methodology. Worked on 2 different projects at different stages, providing me hands-on experience in the industry.

**Tool used (Development tools - H/w, S/w):** Linux, Cadence Virtuoso, Cadence Xcelium, SimVision.

**Objectives of the project:** Learn about Current sensors in-depth. Learn about Mixed-Signal verification flow and methodology. Implement the same on realtime projects.

**Major Learning Outcomes:** Learnt about the mixed-signal verification flow and methodology: about testbench environment setup, model development and validation, testcase development, regression runs. Learnt about current sensor products: their in-depth functionality and application.

**Details of Papers/patents: N/A**

**Brief Description of working environment, expectations from the company:** Extremely supportive environment. All my colleagues were super helpful and patient when it came to knowledge transfer or general guidance. My mentor closely observed my progress and helped me whenever I had opportunities. He also encouraged me to take on tasks progressively. The company's expectations were for me to ramp up in my role and gain basic experience of working in the same role, which were fulfilled.

**Academic courses relevant to the project:** Analog Electronics, Microelectronic Circuits, Analog and Digital VLSI Design, Digital Design, Power Electronics.

**PS-II STATION: ALLEGRO MICRO SYSTEMS, PUNE**  
**FACULTY NAME: MANOJ SUBHASH KAKADE**  
**STUDENT NAME: MADDALI SOHIT VENKATA SAI (2023H1230178H)**

Student Write-up

**PS-II Project Title:** Modelling & Verification of a Speed/Position Sensor IC

**Short Summary of work done during PS-II:** learning programming languages such as SVRNM, VAMS that are used to model the schematics, the testcases for verifying speed/position sensor used for ADAS flow and also tools such as Simvision, VIVA that are used to verify the functionality of the designs.

**Tool used (Development tools - H/w, S/w):** Simvision, ViVA, GVIM

**Objectives of the project:** Advanced Driver-Assistance Systems

**Major Learning Outcomes:** Verification in the industry

**Details of Papers/patents:** NIL

**Brief Description of working environment, expectations from the company:** The working environment is expected to be technically stimulating, inclusive, and collaborative. My mentor has given me the resources to upskill the industry-standard tools and flows such as SystemVerilog, Verilog-AMS, and Cadence platforms. He also cleared every doubt and help me when I was stuck debugging the circuits. From the company, the expectations include clear guidance on tasks, access to relevant tools and documentation, and opportunities to contribute to meaningful verification projects.

**Academic courses relevant to the project:** MEL G626 VTT

**PS-II STATION: ALMACONNECT, GURGAON**

**FACULTY NAME: SIDHARTH MISHRA**

**STUDENT NAME: VIRAJ BARAL (2020B5A42290H)**

Student Write-up

**PS-II Project Title:** Publisher and Data Enrichment Intern

**Short Summary of work done during PS-II:** During my Practice School-II internship at AlmaConnect, I worked as a Publisher and Data Enrichment Intern, contributing to the company's mission of delivering curated academic news to educational institutions. I was primarily responsible for managing the news curation and publishing pipeline for key clients including Whitman College and Trevor Public School. My daily responsibilities involved sourcing relevant educational content from trusted outlets, filtering it according to client-specific preferences, and enriching it with structured metadata such as headlines, categories, and tags. This process ensured that the delivered news was not only timely but also highly relevant and organized. To improve efficiency, I implemented automation tools like Wiza and developed Python scripts to partially automate data enrichment tasks, reducing manual effort and increasing consistency. Additionally, I collaborated with the internal product and client success teams to gather feedback

and iterate on content delivery quality. I also focused on maintaining project quality standards by ensuring zero errors in categorization, meeting all publishing deadlines, and consistently incorporating client feedback. Notably, my work received positive reviews from Whitman College, leading to the renewal of their subscription for the next quarter. Through this internship, I gained valuable experience in education-focused content operations, workflow optimization, and data enrichment practices, along with hands-on use of industry-relevant tools like CMS, Excel, and automation frameworks. This experience has deepened my understanding of the EdTech domain and enhanced my skills in content curation, data tagging, and client-focused service delivery.

**Tool used (Development tools - H/w, S/w):** Advanced Microsoft Excel, Wiza, Python.

**Objectives of the project:** My job is to optimize and streamline curated news feeds for multiple universities.

**Major Learning Outcomes:** Sector-specific knowledge in higher education industry  
Data tagging best practices  
Microsoft Excel application in generating tags

**Details of Papers/patents:** Not applicable

**Brief Description of working environment, expectations from the company:** The internship at AlmaConnect was fully remote, with structured workflows and regular virtual check-ins via tools like Slack and Google Meet. The company expected timely, accurate content delivery, with strong attention to detail and client satisfaction. While I had the autonomy to manage tasks independently, proactive communication and consistency were key. The environment was supportive, professional, and well-suited for learning and productivity.

**Academic courses relevant to the project:** Technical Report writing

**PS-II STATION: ALTAIR, BENGALURU**

**FACULTY NAME: PRAKRUTHI HAREESH**

**STUDENT NAME: ANAND KIRAN THACKER (2020B4A42366H)**

Student Write-up

**PS-II Project Title:** Mid Mesh Correction

**Short Summary of work done during PS-II:** In this project, the process of mid-mesh correction was successfully implemented using computational geometry and clustering algorithms. These developments enhanced both the accuracy and efficiency of the mesh correction pipeline. A corrected mid-mesh was generated from a given solid mesh, validating the implemented

techniques. The updated codebase now includes modular APIs that can be reused for other mesh-related correction workflows.

**Tool used (Development tools - H/w, S/w):** C++, Git

**Objectives of the project:** Postprocessing midmesh to correct it

**Major Learning Outcomes:** C++, software development

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** Great working environment and helping seniors.

**Academic courses relevant to the project:** CAD, Computer programming

**PS-II STATION: ALUMNI AFFAIRS DIVISION, PILANI**

**FACULTY NAME:** ANJANI SRIKANTH KOKA

**STUDENT NAME:** ARPIT SHARMA (2016B1A20654P)

Student Write-up

**PS-II Project Title:** Startup Evaluation and Program Design

**Short Summary of work done during PS-II:** Evaluated startups based on their eligibility, feasibility, scalability, practical applications. Also designed program structures and cohorts for incubation.

**Tool used (Development tools - H/w, S/w):** Excel, Google Sheets, and LLM Models

**Objectives of the project:** To evaluate startups under various government schemes and design cohorts for incubation

**Major Learning Outcomes:** Analytical thinking, startup evaluation, program management, stakeholder management

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** The environment was very conducive, helpful and one of balanced work life. The expectations was pretty standard, timely submissions, good quality of work.

**Academic courses relevant to the project:** Yes

**PS-II STATION: AMAZON - ASIC, BENGALURU**

**FACULTY NAME: VIJAYALAKSHMI ANAND**

**STUDENT NAME: RUGMA R (2023H1400128P)**

Student Write-up

**PS-II Project Title:** Design Verification Of Clock And MCU Subsystem

**Short Summary of work done during PS-II:** I worked on SoC-level verification of the Multi-core MCU Subsystem and the Clock Subsystem. My responsibilities included debugging and fixing existing test failures, as well as developing new test cases in line with RTL changes. In addition, I implemented automation for the Clock Subsystem by developing a script that reads frequency values from an Excel sheet and automatically generates the corresponding register values using SystemVerilog constraints. This significantly improved efficiency and reduced manual effort during the verification process.

**Tool used (Development tools - H/w, S/w):** Linux, System Verilog, Uvm

**Objectives of the project:** To verify and automate Clock and Mcu subsystem

**Major Learning Outcomes:** UVM, System Verilog, Gvim

**Details of Papers/patents:** Nil

**Brief Description of working environment, expectations from the company:** The working environment is collaborative and supportive, providing a great platform for learning and professional growth. Interns are given the opportunity to work on live projects, which offers practical exposure and helps build real-world skills. The team culture is friendly and open, with mentors readily available to guide and assist whenever needed. Expectations from the company include completing assigned projects within the given deadlines and maintaining a consistent level of quality in the work. Employees are also expected to take ownership of their responsibilities, communicate effectively, and collaborate with team members to achieve common goals.

**Academic courses relevant to the project:** VLSI test and Testability.

**PS-II STATION: AMAZON APPLIED SCIENTIST, BENGALURU**

**FACULTY NAME: VIJAYALAKSHMI ANAND**

**STUDENT NAME: RIDDHI PRAVIN ZANTYE (2020B3A30559G)**

Student Write-up

**PS-II Project Title:** CaptainAM

**Short Summary of work done during PS-II** This project developed CaptainAM, an automated support system powered by large language models. We created and labeled a custom dataset, improved the accuracy and grounding of responses, and optimized performance for faster and more reliable advertiser support. The result is a scalable, efficient solution that delivers trustworthy assistance to advertisers.

**Tool used (Development tools - H/w, S/w):** Amazon Web Services, python

**Objectives of the project:** Improving LLM inference time and quality of responses

**Major Learning Outcomes:** LLM, Prompt engineering, information retrieval.

**Details of Papers/patents:** Internal submission to Amazon Machine Learning Conference

**Brief Description of working environment, expectations from the company:** The work culture is practical and focused, with open communication and a clear emphasis on getting things done. While the pace can be demanding, there is a supportive atmosphere where team members collaborate when needed and work together to overcome challenges. Overall, it's a results-driven environment with room for learning and growth.

**Academic courses relevant to the project:** Natural Language processing.

**PS-II STATION: AMAZON APPLIED SCIENTIST, BENGALURU**

**FACULTY NAME: VIJAYALAKSHMI ANAND**

**STUDENT NAME: TEJAS ALISYAM (2020B5A40974H)**

Student Write-up

**PS-II Project Title:** Address Intelligence in Fraud detection

**Short Summary of work done during PS-II:** Developed standalone geospatial models to enhance abuse detection systems with location-based intelligence. The core challenge was converting messy, inconsistent address text into precise spatial features - a capability missing in existing systems that relied primarily on order history and user patterns. Our solution bridges this gap by transforming raw addresses into actionable geographic signals that can be integrated across multiple abuse detection models.

**Tool used (Development tools - H/w, S/w):** AWS, Transformers library, Python.

**Objectives of the project:** To add address as a signal to abuse detection models.

**Major Learning Outcomes:** Deep Learning & Transformers: Developed strong proficiency in understanding and implementing transformer architectures (Flan-T5, RoBERTa, GPT2). Gained hands-on experience in model fine-tuning, and implementing complex loss functions like triplet loss.

**Details of Papers/patents:** Submitted internal paper in AMLC (amazon machine learning conference).

**Brief Description of working environment, expectations from the company:** working environment is dynamic and growth-oriented, and surrounded by talented people. Learning is very high.

**Academic courses relevant to the project:** Deep Learning. Machine Learning.

**PS-II STATION: AMAZON SDE, BENGALURU**

**FACULTY NAME: VIJAYALAKSHMI ANAND**

**STUDENT NAME: MANISHA MATHUR (2020B3A31776G)**

Student Write-up

**PS-II Project Title:** Spike Analysis Tool

**Short Summary of work done during PS-II:** This project focuses on automating spike analysis for services like Fireflower, Config Service, and Dysco by building wiki-integrated CloudWatch dashboards. These dashboards help on-call engineers quickly debug faults, errors, and latency spikes by replacing manual log inspection with these visual dashboards. They highlight top faulting APIs, frequent errors, high-latency requests, and provide latency component-level breakdowns for any time range. Dashboards support filtering by Request ID, OperationName, Service, CustomerId, DomainName, etc., and enable log correlation across service, application, and request logs, allowing full request tracing without manual queries or log downloads. As a result, the project reduced overall spike analysis time from 2 days to just 5–6 hours. Additionally, real-time debugging of tickets was made feasible as for Config Service, I integrated the CloudWatch agent to stream logs to CloudWatch, eliminating the need to manually download them from Timber or SSH-ing into host. I have integrated the dashboards with wiki making them easily accessible to on-call engineers and to away teams, avoiding the need to grant account-level log access.

**Tool used (Development tools - H/w, S/w):** The Spike Analysis Tool leveraged AWS services including CloudWatch, Lambda, CloudFormation, IAM, and CDK along with programming languages Python, Ruby, Perl, and YAML/JSON for development. Amazon internal tools such as Apollo, CWInternalAgent, LPT, and T

**Objectives of the project:** Enable real time debugging and automate spike analysis process

**Major Learning Outcomes:** 1) AWS Services: CloudWatch, Lambda, CloudFormation, IAM, CDK  
2) Programming Languages: Python, Ruby, Perl, CloudFormation YAML/JSON, AWS CDK  
3) Infrastructure as Code

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** Working Environment:

Amazon provided a fast-paced, ownership-driven environment where interns are treated as full contributors rather than observers. I worked within the Search Services team with a dedicated manager and mentor who provided guidance while encouraging independent opportunity-solving. The culture emphasized customer obsession - my primary customers were on-call engineers, and I regularly gathered their feedback through demos and incorporated suggestions rapidly. Collaboration was seamless across teams, with engineers readily sharing knowledge and providing support when needed. The environment promoted experimentation and learning, allowing me to work with cutting-edge AWS services and internal tools.

Company Expectations:

They expect the interns to work hard and learn with their support and guidance.20

**Academic courses relevant to the project :** DSA, OOP, OS, DBMS.

**PS-II STATION: AMAZON SDE, BENGALURU**

**FACULTY NAME:** VIJAYALAKSHMI ANAND

**STUDENT NAME:** ANISH SREENIVAS (2020B3A71464G)

Student Write-up

**PS-II Project Title:** MockBank Service

**Short Summary of work done during PS-II:** I worked on multiple projects/bugs alongside my main project. They varied from small production bugs to entire codebase ramp ups.

**Tool used (Development tools - H/w, S/w):** Java, AWS, Scala.

**Objectives of the project:** To create a new internal API mocking service.

**Major Learning Outcomes:** Java, Design Doc writing, High level design, low level design, system architecture

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** A verify supportive work environment.



**Academic courses relevant to the project:** SDPD, OS, OOPS, DBMS.

**PS-II STATION: AMAZON SDE, BENGALURU**

**FACULTY NAME: VIJAYALAKSHMI ANAND**

**STUDENT NAME: ISHAN SINGH (2020B3AA1505H)**

Student Write-up

**PS-II Project Title:** Nazir-Data Processing Engine & Backend Infrastructure

**Short Summary of work done during PS-II:** As an SDE intern at Amazon in Bangalore, I delivered significant impact across multiple projects during my six-month tenure. My primary contributions focused on three major initiatives that enhanced system performance and data accessibility. First, I optimized the financial health reporting system through multi-threaded parallelization using Completable Futures with a custom thread pool. This implementation reduced the average response time from 17 seconds to 4 seconds, achieving a 75% improvement in latency. Second, I established a database ingestion pipeline for the user authentication and authorization module and completed its Data Platform onboarding. I developed a Change Data Capture (CDC) pipeline using DynamoDB change streams and S3 buckets, enabling real-time data capture and analytics accessibility. This infrastructure now supports direct querying through our data warehouse solutions. Third, I designed and implemented comprehensive KPI dashboards for tracking capital request adoption and budget metrics. I developed complex SQL queries and created interactive visualizations with dynamic filtering capabilities, providing stakeholders with real-time insights into adoption trends and product gaps. Additionally, I contributed to several other initiatives including budget module onboarding, cross-region system retrofitting, and automating monthly financial report generation. Throughout these projects, I demonstrated proficiency in multiple technologies including Scala, TypeScript, Java, and AWS services, while maintaining high code quality standards and documentation practices. My work has significantly improved system efficiency, data accessibility, and business intelligence capabilities within the organization.

**Tool used (Development tools - H/w, S/w):** IntelliJ, AWS CLI, ECS.

**Objectives of the project:** To improve the current infrastructure for reporting and analytics.

**Major Learning Outcomes:** Backend Development, Cloud development, Parallel computation.

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** Working environment included the process of making and reviewing documentation, this was done strictly to ensure best design practices and coding principles are followed. The company expects to ramp up on the internal structure and get familiar with the internal tools and software.

**Academic courses relevant to the project:** OOPS, DSA, DBMS.

**PS-II STATION: AMAZON SDE, BENGALURU**

**FACULTY NAME: VIJAYALAKSHMI ANAND**

**STUDENT NAME: TUSHAR RAGHANI (2021A7PS1404H)**

Student Write-up

**PS-II Project Title:** Auto Deletion of stale pointers

**Short Summary of work done during PS-II:** I addressed a critical challenge in the AddressService system where specific customer interactions through the getContactInfo flow trigger monitoring alerts. These alerts occur when metrics for scanned count and item count exceed established thresholds, indicating potential hot partition aspects in our DynamoDB infrastructure. Currently, resolving these alerts involves a time-consuming manual process that includes: - Identifying affected Customer IDs (CIDs) - Creating MCM requests - Obtaining necessary approvals - Executing data cleanup operations during off-peak hours. My primary goal for this project was to automate this entire process, eliminating manual intervention and reducing operational risks.

**Tool used (Development tools - H/w, S/w):** Java, aws

**Objectives of the project:** Automate the process of deletion of stale pointers which might cause ddb throttling because of expensive lsi based query without consuming the host capacity of the service

**Major Learning Outcomes:** Learnt fully about sqs, sns, s3, lambda and iam of aws

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** The company expects the deliverables to be on time and to be of high standards. Work environment is dynamic and growth oriented.

**Academic courses relevant to the project:** Oops, dbms, dsa.

**PS-II STATION: AMAZON SDE, BENGALURU**

**FACULTY NAME: VIJAYALAKSHMI ANAND**

**STUDENT NAME: VAIBHAV SINGLA . (2021A7PS2227P)**

Student Write-up

## **PS-II Project Title: Data Streaming, API Development and Other Minor Projects**

**Short Summary of work done during PS-II:** I had worked on multiple projects. In my first project, I streamed the data events from a data source (table) to clients in real time, which the clients can use for their own use case. This project involved a number of AWS services as part of the workflow. I had successfully deployed this project in production. Secondly, I developed 4 APIs which were used in enhancing some existing workflow and this is part of a broader project, in development. Each of the APIs dealt with a different type of scenario. Some APIs were paginated and some were batch APIs. The API development involved LLD design and thorough data analysis. Lastly, I worked on integrating a global configuration store in an existing service which used to fetch demanding coded configurations from local files. This helped eliminating the inconsistency and redundancy involved in fetching the same configurations in different services through dynamically fetching from a global store. All the projects involved extensive testing.

**Tool used (Development tools - H/w, S/w):** IntelliJ IDEA, DataGrip, MySQL Workbench, Git and some internal tools

**Objectives of the project:** Stream the events of a domain to clients in real-time, enhance the internal workflow by creating APIs, integrate a service with global configuration story to fetch configurations dynamically

**Major Learning Outcomes:** Technical: AWS services (DynamoDB, Kinesis, ECS, SNS, SQS, Lambda, API Gateway, Cloud watch), Databases (MySQL, PostgreSQL), Java, Dependency Injection Frameworks (Guice, Spring), API Development Lifecycle, Thorough Data Analysis, Low Level Design.

## **Details of Papers/patents: NA**

**Brief Description of working environment, expectations from the company:** As an intern, I was not well-structured and goal-driven to complete projects within some timeline. The projects were assigned such that there is a learning curve for a fresher. The colleagues proactively supported and helped me whenever I was stuck somewhere. The best thing is that in Amazon we are always encouraged to do experimentation, through which we can gain more insightful knowledge.

**Academic courses relevant to the project:** OOPS, DSA, DBMS.

**PS-II STATION: ADVANCED MICRO DEVICES (AMD), HYDERABAD**

**FACULTY NAME: SUPARNA CHAKRABORTY**

**STUDENT NAME: MAYANK SHARMA (2020B5AA2353H)**

Student Write-up

## **PS-II Project Title: Architectural Modelling**

**Short Summary of work done during PS-II:** stabilising infra needed for the simulator

**Tool used (Development tools - H/w, S/w):** C++, VS Code

**Objectives of the project:**

**Major Learning Outcomes:** Building c++ simulators for GPU, C++ practical knowledge

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** Very friendly motivating environment and welcomes new ideas.

**Academic courses relevant to the project:** OOPS, DD, MPI.

**PS-II STATION: ADVANCED MICRO DEVICES (AMD), HYDERABAD**

**FACULTY NAME: SUPARNA CHAKRABORTY**

**STUDENT NAME: NARAYAN KUMAR CHOUDHARY (2023H1400121P)**

Student Write-up

**PS-II Project Title:** Logic Synthesis using advanced Front end design flow to improve power performance & area.

**Short Summary of work done during PS-II:** Project Summary: The project focuses on advancing the logic synthesis and front-end integration process using the latest industry-standard automated flows. The core objective is to achieve and sustain optimal Power, Performance, and Area (PPA) metrics, which are critical for modern semiconductor design. The methodology involves integrating RTL design with synthesis tools and optimizing it through constraint-driven flows and physical-aware synthesis techniques. By leveraging state-of-the-art EDA tools and scripting (such as TCL and UPF integration), the project streamlines synthesis workflows to reduce manual effort and improve timing closure efficiency. It also emphasizes front-end design checks including clock gating, multicycle path optimization, and logic restructuring to reduce dynamic power consumption and improve timing QoR (Quality of Results). A significant part of the project involves analyzing synthesis reports, identifying bottlenecks, and iteratively refining constraints and logic to achieve target performance goals. Continuous enhancements are made through automation of regression setups, synthesis parameter tuning, and integration with floorplanning feedback to ensure the design is physically aware at early stages. The project also includes collaboration with backend teams to ensure smooth handoff and alignment of design goals. Emphasis is placed on building robust, scalable flows that support technology scaling and evolving design requirements. Overall, this project drives efficiency in the front-end design cycle, enabling faster time-to-market and better silicon results, while maintaining a continuous feedback loop for PPA improvements in real-world chip design environments.

**Tool used (Development tools - H/w, S/w):** AMD Internal Infrastructure, UNIX, TCL Tk, MS office

**Objectives of the project:** To understand the Physical Design CAD with latest industry standard front-end integration and perform logical synthesis to improve PPA

**Major Learning Outcomes:** Understand logic Synthesis and front-end integration with latest industry standard automated flow and work to improve and sustain PPA with continuous enhancements.

**Details of Papers/patents:** I have not work on paper publishing yet.

**Brief Description of working environment, expectations from the company:** Working Environment & Expectations from the Company:

The working environment is fast-paced, collaborative, and innovation-driven, reflecting the dynamic nature of the semiconductor industry. Team members are encouraged to take ownership of tasks while actively contributing to shared goals. Daily work involves close interaction with cross-functional teams including RTL designers, synthesis engineers, physical design, and verification teams. A strong emphasis is placed on continuous learning, knowledge sharing, and automation to improve workflow efficiency.

The culture promotes open communication, where ideas and feedback are welcomed regardless of experience level. Regular sync-ups, design reviews, and brainstorming sessions help align teams toward common PPA and schedule targets. A supportive atmosphere exists where mentorship and guidance are readily available, especially for those eager to learn and grow.

From the company, the expectation is to provide a challenging and inspiring work environment that encourages technical growth and innovation. Access to the latest EDA tools, technology nodes, and structured training programs is essential to stay current with industry standards. Constructive feedback, performance recognition, and clear career growth opportunities are also key expectations.

Flexibility in task allocation, trust in employees' abilities, and a culture that values work-life balance contribute to overall job satisfaction. Encouragement to participate in internal forums, tech talks, and innovation challenges helps nurture creativity and a sense of belonging.

Overall, the goal is to thrive in an environment that values expertise, rewards curiosity, and fosters collaboration, while aligning individual contributions with the company's mission of delivering high-quality, efficient, and scalable semiconductor solutions.

**Academic courses relevant to the project:** Physical Design, VSLI Design, TCL, C Programming, Reconfigurable Computing.

**PS-II STATION: APPLE SOFTWARE ENGINEERING-WTE TEAM, BENGALURU**

**FACULTY NAME: VENKATESWARA RAO THUNUGUNTLA**

**STUDENT NAME: AMIT GHOSH (2021A7PS0181H)**

Student Write-up

**PS-II Project Title:** NLP-aided Intelligence for Smart Filtering & Script Generation

**Short Summary of work done during PS-II:** Devised a Smart Filtering solution for an Apple Internal tool, leveraging Natural Language Processing concepts such as spell checking, neural networks, statistical language models, and prompt-tuning. Efficient algorithmic design played a key role in model selection and ensuring maximum accuracy, with algorithms involving dynamic programming, tree and stack based recursive approaches, etc. Coding was done in Swift, SwiftUI, and AppKit.

**Tool used (Development tools - H/w, S/w):** Swift, XCode, Python.

**Objectives of the project:** Design Smart Filtering feature for proprietary cellular modem log analysis software.

**Major Learning Outcomes:** - Learnt the Swift language

- Learnt SwiftUI and AppKit
- Got exposed to proper Software Dev
- Exposure to design patterns
- Exposure to multithreaded development

**Details of Papers/patents:** N/A

**Brief Description of working environment, expectations from the company:** Quality of work very high but so are the expectations. Environment very supportive, friendly and conducive for good work.

**Academic courses relevant to the project:** Natural Language Processing, Data Structures & Algorithms, Operating Systems, Computer Networks, Compiler Construction.

**PS-II STATION:** APPLE SOFTWARE ENGINEERING-WTE TEAM, BENGALURU

**FACULTY NAME:** VENKATESWARA RAO THUNUGUNTLA

**STUDENT NAME:** ADITYA KUMAR SHARMA (2021A7PS3112H)

Student Write-up

**PS-II Project Title:** Events & tasks visualisation for audio products quality improvements

**Short Summary of work done during PS-II:** I worked on making it easier to handle and understand trace data by automating how event and trace code mappings are created, which saved a lot of manual work. I also built several plugins for a visualization tool that made it simpler to see and analyze important information from the trace data. These improvements helped the team spot

aspects and understand system behavior more quickly. Overall, my work made the process of analyzing trace data faster and more user-friendly.

**Tool used (Development tools - H/w, S/w):** Languages: C++, Python, Swift, SwiftUI.

**Objectives of the project:** The aim of the project was to automate and visualize audio trace data, which plays a key role in debugging and analyzing system-level audio behavior. The objective was to build tools that could convert raw trace codes into structured, meaningful insights and display them through intuitive graphical interfaces.

**Major Learning Outcomes:** 1. Learned to automate the transformation of trace event data using C++ and Python.

2. Gained experience in Swift and SwiftUI to create interactive visualization tools.

**Details of Papers/patents: NA**

**Brief Description of working environment, expectations from the company:** The environment was positive, with clear direction provided on a well-structured project. Regular weekly meetings offered valuable opportunities to review and analyze progress.

**Academic courses relevant to the project:** OOPS, Computer Networks.

**PS-II STATION: APPLE- SW-BPR TEAM, HYDERABAD**

**FACULTY NAME: VENKATESWARA RAO THUNUGUNTLA**

**STUDENT NAME: SPARSH GOENKA (2021A7PS2413P)**

Student Write-up

**PS-II Project Title:** Automating the calculation of a key metric used in supply chain

**Short Summary of work done during PS-II:** Collaborated with business users in different regions to understand the requirements. Discussed about the design of the application which was feasible to implement. Collaborated with database team to design the tables and the structure for the application. End users tested the application with the help of our dedicated testing team and we fixed the aspects.

**Tool used (Development tools - H/w, S/w):** Java, React, Springboot.

**Objectives of the project:** Building an application to make a supply chain process more efficient.

**Major Learning Outcomes:** Collaboration, Soft skills, Software development skills.

**Details of Papers/patents: NA**

**Brief Description of working environment, expectations from the company:** Depends on the teams heavily, had to attend meetings at night due to collaboration with different regions, but offers independence and trust.

**Academic courses relevant to the project:** DBMS, OOPS, CP.

**2023H15408598HYDERABAD**

**FACULTY NAME: SRINIVAS KOTA**

**STUDENT NAME: JISHNU SHENOI (2021A4PS1371G)**

Student Write-up

**PS-II Project Title:** ML application in Manufacturing

**Short Summary of work done during PS-II:** To create a predictive model that will convert the system from a reactive feedback mechanism to a predictive system for the anodization process. There are a number of variables involved that govern the process, this model helps to capture small changes in a variable and provide the corresponding change in the output. This will provide an efficient method to update process parameters, while saving resources, time and money. Using object detection, an optical inspection unit was developed as an efficient and easy method for inspection, not relying on visual manual inspection. Leveraging internal tools to fast track some processes, the model used a number of images to train a model with the help of data processing. There were multiple phases to the development, data collection, annotation, augmentation, training and deployment. A custom setup was designed using CAD to house lighting fixtures.

**Tool used (Development tools - H/w, S/w):** Python, CAD, internal tools for analyses

**Objectives of the project:** To develop a predictive model for the anodization process; develop an object detection model that can inspect small components

**Major Learning Outcomes:** Application of ML to optimize processes and save costs; professional communication and presentation; driving actions and working with cross-functional teams.

**Details of Papers/patents: NA**

**Brief Description of working environment, expectations from the company:** The team is extremely helpful and fosters a learning environment with any individual, no matter the experience. There is constant support and assistance from managers and mentors. They encourage development on their ongoing system that will directly translate into helping the team and the company, they do not restrict our learning opportunities and allowed us to work on confidential data.



**Academic courses relevant to the project:** Machine Learning, Artificial Intelligence, Probability and Statistics, Quality Control and Reliability.

**PS-II STATION: APPLE-SOFTWARE DEVELOPMENT- BPR TEAM-BUSINESS PROCESS RE-ENGINEERING, BENGALURU**

**FACULTY NAME: VENKATESWARA RAO THUNUGUNTLA**

**STUDENT NAME: RADHIKA GUPTA (2020B4A70600P)**

Student Write-up

**PS-II Project Title:** Automated Freight invoice discrepancy detection

**Short Summary of work done during PS-II:** Created an automatic freight invoice discrepancy detection model, the side product of which was an optimum packaging insights.

**Tool used (Development tools - H/w, S/w):** Apple internal tools, Splunk, Grafana, Streamlit, Docker, Gurobi.

**Objectives of the project:** To build an automatic discrepancy detection model in the freight invoices to expedite the post audit process.

**Major Learning Outcomes:** Learnt how to draw meaningful observations from raw data.

**Details of Papers/patents:** A pallet optimization model built using Optimization Research principles.

**Brief Description of working environment, expectations from the company:** Friendly, collaborative, dynamic and growth-oriented, expect quick results, give powerful presentations.

**Academic courses relevant to the project:** Optimization, Optimization Research, Foundations of Data Science, Data Structures and Algorithms, Object Oriented Programming Language.

**PS-II STATION: APPLE-SOFTWARE DEVELOPMENT ENGINEERING, IS&T, HYDERABAD**

**FACULTY NAME: VENKATESWARA RAO THUNUGUNTLA**

**STUDENT NAME: ADAPALA SANJANA (2020B4A72243H)**

Student Write-up

**PS-II Project Title:** Confidential

**Short Summary of work done during PS-II:** I had two projects. First, I contributed as a backend developer to a large scale web application. This included feature development and bug fixes. Secondly, I was also working on creating agentic workflows.

**Tool used (Development tools - H/w, S/w):** Springboot, Node.js, Langchain

**Objectives of the project:** Contribute to the backend development of a application, create a tool for making agentic workflows.

**Major Learning Outcomes:** Java Springboot, AI Agents

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** Great experience, supportive mentors and managers, realistic expectations with good learning outcomes.

**Academic courses relevant to the project:** OOPS, Software Engineering, AI.

**PS-II STATION: APPLE-SOFTWARE DEVELOPMENT ENGINEERING, IS&T, HYDERABAD**

**FACULTY NAME: VENKATESWARA RAO THUNUGUNTLA**

**STUDENT NAME: BURHANUDDIN MURTAZA TINWALA (2021A7PS2905H)**

Student Write-up

**PS-II Project Title:** Confidential

**Short Summary of work done during PS-II:** Worked on Authentication protocols

**Tool used (Development tools - H/w, S/w):** SW - React and Spring Boot

**Objectives of the project:** Build a web application and features

**Major Learning Outcomes:** Authentication and Authorization - Frontend and Backend Development

**Details of Papers/patents:** None

**Brief Description of working environment, expectations from the company:** this experience taught me the value of planning, prioritizing, and maintaining consistency in performance. I also learned to adapt to changing situations effectively.

**Academic courses relevant to the project:** OOPs, DBMS, OS, Computer network.

**PS-II STATION: APTIV, BENGALURU**  
**FACULTY NAME: SANGEETHA VISWANATHAN**  
**STUDENT NAME: ALHAAD MODAK (2021A3PS2112H)**

Student Write-up

### **PS-II Project Title: Demandingware Design**

**Short Summary of work done during PS-II:** During my internship at Aptiv, I worked as part of the demandingware engineering team, focusing on schematic design, power optimization, validation, and demandingware-software integration. Using ECAD tools like Mentor Graphics, I created and reviewed detailed schematics involving MCUs, sensors, transceivers, and power components. I contributed to designing robust power architectures and implemented protections for conditions like overvoltage, reverse polarity, and short circuits. A key aspect of my work involved analyzing power consumption and identifying optimization opportunities using lab tools such as Digital Storage Oscilloscopes (DSOs). I also participated in MCIP (Make Cost Improvement Plan) activities by evaluating BOMs and identifying cost-effective component alternatives without compromising quality. In the post-validation phase, I assisted in testing board functionality under extreme temperatures and verified signal behavior and communication via CAN protocols. I further supported system-level development by preparing comprehensive Demandingware-Software Integration (HSI) documentation detailing interfaces, signal mappings, and diagnostics. This internship provided hands-on experience in automotive demandingware development, taught me how to collaborate across teams, and gave me insight into industry-grade validation and design practices. It enhanced my technical, analytical, and documentation skills, preparing me well for a full-time role in embedded demandingware engineering.

**Tool used (Development tools - H/w, S/w):** Mentor graphics expedition design

**Objectives of the project:** Designing schematics for various automotive

**Major Learning Outcomes:** Demandingware Design

**Details of Papers/patents: NA**

**Brief Description of working environment, expectations from the company:** The work environment at Aptiv was collaborative, professional, and highly conducive to learning. From day one, I was made to feel like a valuable part of the team, with my mentor and colleagues offering continuous guidance and support. Regular team meetings, technical discussions, and feedback sessions created an atmosphere of transparency and open communication. I had the opportunity to interact with cross-functional teams, which enriched my understanding of end-to-end product development. The culture emphasized both individual ownership and teamwork, fostering a balanced environment that encouraged initiative, learning, and growth—making it an ideal setting for personal and professional development.

**Academic courses relevant to the project:** Power Electronics, Electrical Sciences.

**PS-II STATION:** APTIV, BENGALURU

**FACULTY NAME:** SANGEETHA VISWANATHAN

**STUDENT NAME:** ADITYA ANANT SHANKAR SINGH (2021A3PS2722H)

Student Write-up

**PS-II Project Title:** FTE Training

**Short Summary of work done during PS-II:** I have had the opportunity to learn about software such as CMake which is used for writing build files, work on Unit testing for the project repositories, integrate DBC files as part of updating the AUTOSAR COM stack of the project. I've also had hands-on experience flashing applications directly onto demandingware, which has been an invaluable part of learning how embedded systems come together.

**Tool used (Development tools - H/w, S/w):** C++, CMake, Python, Git, VMware

**Objectives of the project:** Get familiar with the technologies used, work culture and projects of the company

**Major Learning Outcomes:** Exposure to a corporate environment, and professional growth encountered while contributing to real-world projects.

**Details of Papers/patents:** N/A

**Brief Description of working environment, expectations from the company:** My internship at Aptiv has been a transformative experience, providing me with valuable hands-on exposure to real-world software development in the automotive industry. Over the past months, I have significantly enhanced my technical skills by contributing to various aspects of the project, including improving Unit test coverage, automating the generation of test files, resolving static analysis warnings, and debugging build errors in Make files. I have also gained practical experience in AUTOSAR COM stack ensuring the software adhered to industry standards.

**Academic courses relevant to the project:** Computer Programming, Machine Learning, Digital Design.

**PS-II STATION:** APTIV, BENGALURU

**FACULTY NAME:** SANGEETHA VISWANATHAN

**STUDENT NAME:** DHARANIKANTH REDDY YERASI (2021A7PS0264H)

Student Write-up

**PS-II Project Title:** Full time employee training

**Short Summary of work done during PS-II:** During this phase of my internship, I contributed to both development and quality-related tasks across teams. One of my key responsibilities was syncing the customer and internal repositories. Development work begins in the customer repo without unit tests, and I ensured changes were properly replicated in the internal repo, which includes unit tests, flowcharts, and is used for metrics like static analysis and MISRA warnings. This helped maintain code quality and traceability, even though syncing is often manual and time-consuming due to time constraints. I also improved an existing Excel macro used for handling the Fault Event Table (FET). The updated macro reads table values and generates a C header file containing Enums. This automation reduced manual effort and minimized the risk of human error. I supported DFMEA activities by working with the product architect. Using an internal tool, I updated detection controls, preventive measures, occurrence, and impact ratings to keep the DFMEA accurate and up to date. Additionally, I contributed to quality-related tasks, ensuring documentation and process compliance were in place ahead of the audit. Overall, my work helped bridge resource gaps, improve development consistency, and maintain high-quality standards across projects.

**Tool used (Development tools - H/w, S/w):** polarion, vscode, blackduck, coverity, jira, confluence, Gerrit, github.

**Objectives of the project:** Learn what a full time employee does at the company as I have a full time offer at the company and PS2 is due to PS lock.

**Major Learning Outcomes:** Unit testing, Static analysis.

**Details of Papers/patents: NA**

**Brief Description of working environment, expectations from the company:** The working environment has been highly collaborative, structured, and focused on continuous improvement. The team follows a sprint-based development cycle with clear task ownership and regular sync-ups, encouraging accountability and transparency. Despite some resource constraints, there is a strong sense of mutual support, and team members are approachable and willing to share knowledge, which creates a positive and productive atmosphere.

**Academic courses relevant to the project:** Computer Programming.

**PS-II STATION:** APTIV, BENGALURU

**FACULTY NAME:** SANGEETHA VISWANATHAN

**STUDENT NAME:** NITIN JINAGAM (2021A8PS1056H)

Student Write-up

**PS-II Project Title:** Worked on multiple projects

**Short Summary of work done during PS-II:** Learnt a lot about the corporate field being my first experience. I got to work on a lot of different projects, got to learn various technologies. Once they get to know your capabilities, they start relying on you for important tasks and that feeling of being known as a capable individual is pretty good

**Tool used (Development tools - H/w, S/w):** Pycharm, Gerrit, git, plastic scm and most of the tools being used were developed inside aptiv

**Objectives of the project:** Objective was to write clean, structured and understandable code

**Major Learning Outcomes:** Python, devops, automation in vehicles

**Details of Papers/patents:** None

**Brief Description of working environment, expectations from the company:** Work environment is pretty relaxed and balanced. Work from home option is based on your manager.

**Academic courses relevant to the project:** Oops,os, fdsa.

**PS-II STATION: APTIV, BENGALURU**

**FACULTY NAME: SANGEETHA VISWANATHAN**

**STUDENT NAME: CHITRESH NEEMA (2021AAPS0265P)**

Student Write-up

**PS-II Project Title:** Testing of Middleware features

**Short Summary of work done during PS-II:** I worked on verification of feature in middleware package. It includes verification of 56 requirements and development of 72 Testcases and 5 test application in C++

**Tool used (Development tools - H/w, S/w):** PYtest, C++, Linux Commands

**Objectives of the project:** To verify all the requirements related to a feature provided in the middleware package

**Major Learning Outcomes:** Understood verification process in developmental Cycle

**Details of Papers/patents:** None

**Brief Description of working environment, expectations from the company:** My team was pretty relaxed and balanced with working hours but you're expected to at least cover 6hrs during a work day. There was no micromanaging and team members were plenty supportive in case of any challengingness faced.

**Academic courses relevant to the project :** Yes

**PS-II STATION:** APTIV, BENGALURU

**FACULTY NAME:** SANGEETHA VISWANATHAN

**STUDENT NAME:** JANMANCHI SRIRAJ (2021AAPS2624G)

Student Write-up

**PS-II Project Title:** NA

**Short Summary of work done during PS-II:** I work in the Cybersecurity team of the company. The team focuses more on the demanding ware aspect of Cybersecurity, like how to incorporate safety net in demanding ware while design itself. My work in the team ranged from testing to developing. In the beginning I worked on Bootloader software, the initial code that runs in a device once booted, to see how it works and how Bootloader is the main component where Cybersecurity is being implemented. As per the requirements I changed and updated the source of the Bootloader in one of the variant. Then I also worked on CAN communication protocol as the vehicle's system is entirely dependent on CAN. I made a few changes in CAN implementation and tested the changes. Once that done I was put in another project with a variation in how the Bootloader is implemented, I attended KT sessions to come to up speed and at the moment I am working on implementing services from UDS in the Bootloader system.

**Tool used (Development tools - H/w, S/w):** Visual Studio Code, CANoe, Lauterbach, SensorFlash Tool and Plastic SCM

**Objectives of the project:** NA

**Major Learning Outcomes:** Cybersecurity Practices

**Details of Papers/patents:** None

**Brief Description of working environment, expectations from the company:** The environment is very friendly as there is no strict hierarchical approach of doing things. Everyone is encouraged to speak up no matter if he/she just joined the company today. Everything is almost transparent, everyone is encouraged to believe the company is ours and behave like a owner. There are frequent knowledge session conducted and also co-curricular activities such and games and quizzes are conducted to make the employees feel like energized.

The company has clear and supportive expectations from its employees except that everyone should take responsibility of work and complete it on time. What I expect from the company is also nothing too unique. I want the place I work to be fun, engaging and free to see what else I can do to contribute and get enough insights to lead a life anywhere I want to.

**Academic courses relevant to the project:** Embedded system design, Computer Architecture and C Programming.

**PS-II STATION: AQUACARTA (PARTNERED BY WATERLIFE INDIA ) - AERIAL IMAGERY, HYDERABAD**

**FACULTY NAME: Y V K RAVI KUMAR**

**STUDENT NAME: CHAMPATI KAVYA GITANJALI (2020B2A32426H)**

Student Write-up

**PS-II Project Title:** Machine Learning and Analytics to build models to analyses crop life cycles

**Short Summary of work done during PS-II:** Worked on developing models to analyses crop life cycles and give solutions to our clients. Involved reading papers and learning new things, working with advanced ML models and coding software.

**Tool used (Development tools - H/w, S/w):** LINUX, Python, Google earth engine

**Objectives of the project:** Creating machine learning models for crop cycle analysis.

**Major Learning Outcomes:** Machine Learning, Data Processing, Reading papers.

**Details of Papers/patents:** None

**Brief Description of working environment, expectations from the company:** Very encouraging and motivating.

**Academic courses relevant to the project :** Machine Learning

**PS-II STATION: ARISTA NETWORKS INDIA PVT. LTD., PUNE**

**FACULTY NAME: SANGEETHA VISWANATHAN**

**STUDENT NAME: ISHAN VIKRAM NERLEKAR (2020B3A71515G)**

Student Write-up

**PS-II Project Title:** Interface List Collection with MWM Updates



**Short Summary of work done during PS-II:** During my Practice School-II at Arista Networks, I worked on enhancing the software responsible for detecting, processing, and transmitting network interface information from wireless access points (APs) to the backend monitoring system. My primary objective was to build a robust mechanism to collect detailed interface attributes—such as name, type (wired/wireless/bridge), protocol support, and operational status—by combining data from system calls (like `getifaddrs()`) and a local capability configuration file. I designed logic to detect changes in the interface list dynamically and send updates only when changes occurred, thereby reducing unnecessary network traffic. Initially, this was implemented using Protobuf messages, but I later reverted to the existing binary packing format for compatibility with the server. Additionally, I contributed to packet capture functionality, enabling the AP to receive remote capture requests, stream packet data over selected interfaces, and transmit it back efficiently. I also wrote C-based unit tests using the CMocka framework to ensure correctness and reliability of core modules. This involved mocking global state, verifying protobuf structure population, and simulating interface list updates. My work demanded a strong understanding of low-level networking concepts, systems programming in C, and communication protocols. Overall, the project improved the observability and configurability of AP interfaces in production environments and strengthened my skills in embedded Linux, protocol design, and automated testing.

**Tool used (Development tools - H/w, S/w):** C, Git, Gerrit, Python, Postman.

**Objectives of the project:** Collect all network interfaces from the wifi access point and send it to the MWM for custom packet trace purposes.

**Major Learning Outcomes:** Teamwork, Pipelining, Multitasking

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** At Arista Networks, I was part of the Wireless Systems team working on real-world features deployed on enterprise-grade wireless access points. The working environment was fast-paced, collaborative, and highly technical, offering exposure to production-level code and rigorous engineering practices. I was treated as a full-fledged contributor, with access to the same code repositories, tools, and review processes as full-time engineers. My mentor and team members provided regular guidance while also encouraging independent opportunity-solving and ownership of tasks. I was expected to understand the existing system architecture, write production-quality C code, and follow internal coding standards and documentation practices. The company placed strong emphasis on writing efficient, reliable, and testable code. Expectations also included proactive communication of progress, participation in team stand-ups and discussions, and delivering working features within defined timelines. In return, Arista provided an open environment that encouraged learning, knowledge sharing, and hands-on experimentation. Access to testbeds, debugging tools, and detailed design documents helped bridge the gap between academic knowledge and industry expectations. The experience challenged me to grow technically while fostering a strong sense of engineering discipline.

**Academic courses relevant to the project:** OS, CN, DSA.

**PS-II STATION:** ARM EMBEDDED TECHNOLOGIES PVT. LTD., BENGALURU

**FACULTY NAME:** MANOJ SUBHASH KAKADE

**STUDENT NAME:** ARUNIMA THAKUR (2023H1230144G)

Student Write-up

**PS-II Project Title:** The Role of Emulators in demandingware and software development

**Short Summary of work done during PS-II:** This project puts light on the importance of the Emulation field in the semiconductor industry. In this project I learnt about demandingware emulators and how a complex soc is dumped to it for the verification purposes since simulators can't handle a very complex soc. Emulators give very fast results. Compiled various kits using internal flow and compared the performances of all the emulators on parameters like- number of boards required, operating frequency achieved, time taken for run etc.

**Tool used (Development tools - H/w, S/w):** Linux

**Objectives of the project:** Understanding the need of emulation and emulators in the field of semiconductor industry

**Major Learning Outcomes:** Learnt usage of different emulators their commands their pro and cons and which emulator to use for particular design requirements, how to upload a design on emulator and check other important design parameters.

**Details of Papers/patents:** None

**Brief Description of working environment, expectations from the company:** Working Environment in ARM is very good. Team members are quite supportive and welcoming in nature.

**Academic courses relevant to the project:** Digital Design, Verilog and System Verilog.

**PS-II STATION:** ARM EMBEDDED TECHNOLOGIES PVT. LTD., BENGALURU

**FACULTY NAME:** MANOJ SUBHASH KAKADE

**STUDENT NAME:** BHOOMI VARSHNEY (2023H1230174P)

Student Write-up

**PS-II Project Title:** Physical design implementation & IR/EM drop analysis, and its mitigation in the power-dense core

**Short Summary of work done during PS-II:** In this project, I have worked on IR/EM analysis for a power-dense core, and implemented different methodologies to reduce the violations through implementation and to achieve a balance between power and performance also.

**Tool used (Development tools - H/w, S/w):** Cadence tools, Ansys tools

**Objectives of the project:** To reduce the IR/Em violation on a power dense core

**Major Learning Outcomes:** IR/EM causes and how to reduce by achieving balance with power and performance through implementation and scripting languages.

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** In this project, I have worked on IR/EM analysis for a power-dense core, and implemented different methodologies to reduce the violations through implementation and to achieve a balance between power and performance also.

**Academic courses relevant to the project:** CAD for IC Design.

**PS-II STATION:** ASBL, HYDERABAD

**FACULTY NAME:** MUTHUKUMAR G .

**STUDENT NAME:** SHREERAM JITENDRA PETKAR (2020B3A21966P)

Student Write-up

**PS-II Project Title:** Residential Building Construction Software- PROGRESS

**Short Summary of work done during PS-II:** This report highlights the work carried out by me at ASBL Hyderabad, during the PS-II semester of my course from January 2025 to June 2025. I am a part of ASBL 'Progress' team, a B2B SaaS in-house construction management software developed by ASBL. I have ideated some of the features required in the product. Thereafter, I have worked with the product's designers to ensure that the design is usable and can be sent to the development team. I have written PRD (Product Requirement Documentation) for features which are helpful to all stakeholders utilising the product in real time. Further, I performed comparative analysis of leading construction management software to arrive at the most optimum features required to be incorporated in our product for users. In addition, I have visited the construction sites and interacted with construction teams to ensure MIS output of software is coupled with the actual progress on ground. I have also conducted case studies to arrive at KPIs (Key Performance Indicators) for existing UI products of reputed companies to learn product thinking and come up with improvements in the existing features. Lastly, I have learnt about capturing quality metrics at the construction site to ensure final quality standards for building construction.

**Tool used (Development tools - H/w, S/w):** Figma, Canva, React etc.

**Objectives of the project:** Learn Product Management as a role, and understand how new features are ideated and developed which are beneficial for all users.

**Major Learning Outcomes:** How Product Management works, and how to work together with other verticals like Web Development, Design and Business Teams. Also, learning basic skills in Web Design and Development.

**Details of Papers/patents: NA**

**Brief Description of working environment, expectations from the company:** The working environment is extremely professional, and the office culture is vibrant. There is a good mix of a young and experienced people in the workforce. The company expects you to be disciplined, professional, on-time, and eager to contribute to work.

**Academic courses relevant to the project:** Civil Engineering Materials.

**PS-II STATION: ASBL, HYDERABAD**

**FACULTY NAME:** MUTHUKUMAR G .

**STUDENT NAME:** SHRIYANSH AGARWAL (2021A2PS2381P)

Student Write-up

**PS-II Project Title:** Leads App

**Short Summary of work done during PS-II:** Did a great work

**Tool used (Development tools - H/w, S/w):** Jira confluence

**Objectives of the project:** To help sales executives

**Major Learning Outcomes:** Ideation

**Details of Papers/patents: None**

**Brief Description of working environment, expectations from the company:** Very good

**Academic courses relevant to the project:** Civil Engineering Materials.

**PS-II STATION: ASTERA LABS, BENGALURU**

**FACULTY NAME: KRANTHI KUMAR PALAVALASA**

**STUDENT NAME: ANUJ RAMESH PARTANI (2020B2A81199G)**

Student Write-up

**PS-II Project Title:** RTL Design Intern

**Short Summary of work done during PS-II:** Did RTL Design, Part of Code reviews.

**Tool used (Development tools - H/w, S/w):** Verilog, Synopsys DVE

**Objectives of the project:** Get an overview of RTL design, Fix Lint aspects, Develop simple testbenches to check the functionality.

**Major Learning Outcomes:** RTL Design

**Details of Papers/patents:** NA

**Brief Description of working environment, expectations from the company:** Goal Oriented

**Academic courses relevant to the project:** Digital Design, Verilog, Synopsys.

**PS-II STATION : ASTERA LABS ,BENGALURU**

**FACULTY NAME: KRANTHI KUMAR PALAVALASA**

**STUDENT NAME: SAUMARJIT GOSWAMI (2020B2AA2115G)**

Student Write-up

**PS-II Project Title:** PCIe Compliance Verification

**Short Summary of work done during PS-II :** The internship was structured in two distinct phases. Phase I focused on a preliminary project involving Python scripting, where I developed an automation framework for managing the verification environment. This included handling the scheduling, launch, and termination of regression runs, along with building a real-time dashboard to track and publish regression metrics and results. Phase II formed the core of the internship, where I contributed to the verification of a next-generation project targeting PCIe Gen 6 compliance, specifically on the Physical Layer. My work involved testing and debugging the RTL design for key PCIe features such as loopback, equalization, SRIS, and more, with the goal of improving coverage and achieving a higher pass rate. This phase required a strong understanding of PCIe protocol and hands-on debugging across multiple test scenarios. Overall, the internship offered a solid balance of scripting, automation, and hands-on protocol-level verification experience.

**Tool used (Development tools - H/w, S/w) :** DVE, VCS, Verilog, System Verilog, Python

**Objectives of the project :** To verify the complete PCIe Gen 6 compliance functioning of upcoming projects.

**Major Learning Outcomes :** 1) Developed familiarity to design verification environments.  
2) Learned UVM methodologies.  
3) Gained industry exposure to Verilog and System Verilog.  
4) Gained extensive knowledge about PCIe protocol and ASIC workflow.

**Details of Papers/patents :** No papers or patents involved with the internship.

**Brief Description of working environment, expectations from the company :** The working environment at the company was both professional and friendly. Interns had the opportunity to work closely with experienced senior employees, fostering a collaborative and supportive atmosphere. There was frequent and open communication with mentors across various domains, including Design, Verification, and Physical Design. Each intern was assigned a specific area of work, directly aligned with the responsibilities of their designated mentor, allowing for focused learning and contribution.

The expectations were clear from the beginning—interns were encouraged to take full ownership of their assigned tasks and contribute towards meeting project deadlines. Accountability and initiative were valued, and efforts to learn and grow were consistently supported. Team members and mentors remained approachable throughout, making it easy to seek clarifications or technical guidance whenever needed. Tasks often evolved based on changing project needs, and priorities were sometimes redefined mid-way. This brought in a level of flexibility and adaptability, which was essential for keeping up with fast-paced developments.

Overall, the environment promoted hands-on learning, professional discipline, and teamwork. It provided a good balance of independence and guidance, helping interns not only understand the technical aspects of the role but also gain insight into real-time project execution in a corporate setting.

**Academic courses relevant to the project :** Digital Design, Computer Programming, Communication Networks, Computer Architecture

**PS-II STATION: ASTERA LABS ,BENGALURU**

**FACULTY NAME: KRANTHI KUMAR PALAVALASA**

**STUDENT NAME: MANEY SAVIO KIDANGAN (2020B4AA1999G)**

Student Write-up

**PS-II Project Title:** Performance dashboard and functional coverage for nightly regressions

**Short Summary of work done during PS-II :** Automated posting and collection of regression data and performance metrics of nightly simulations run in a conglomerated fashion for ease of access and debugging. Furthermore, wrote functional coverage code for Performance verification.

**Tool used (Development tools - H/w, S/w) :** VCS, DVE

**Objectives of the project:** Performance verification of chip

**Major Learning Outcomes:** UVM based testbench

**Details of Papers/patents:** N/A

**Brief Description of working environment, expectations from the company:** Very open and happening environment. Experienced and freshers alike were in constant conversation. No one hesitated to help.

**Academic courses relevant to the project:** Computer Architecture

**PS-II STATION :** ATKINSREALIS, BENGALURU ,BENGALURU

**FACULTY NAME:** MUTHUKUMAR G .

**STUDENT NAME:** PURANAM SRI VENKATA NAGA KARTHIK (2023H1060160H)

Student Write-up

**PS-II Project Title:** Seismic Assessment of AGR

**Short Summary of work done during PS-II :** During my learning at AtkinsRéalis in the Nuclear Engineering division, I contributed to the Seismic Assessment of Advanced Gas-Cooled Reactors (AGR). I gained hands-on experience in structural analysis of reactor cores, focusing on mechanical stress, thermal effects, and safety compliance. This role allowed me to apply theoretical knowledge to real-world challenges and enhance my opportunity-solving skills. Collaborating with senior engineers deepened my understanding of nuclear design principles and industry standards, significantly boosting my technical and professional development.

**Tool used (Development tools - H/w, S/w) :** Abaqus Explicit, MS WORD, Power Query, PowerPoint

**Objectives of the project :** Structural analysis of reactor cores, where I contribute to stress analysis, deformation studies, and optimizing designs for enhanced safety and performance.

**Major Learning Outcomes :** Structural Analysis on Graphite cores. Deep understanding and working of nuclear power plants. Collaboration and teamwork with seniors. Seismic assessments on nuclear power plants.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** At AtkinsRéalis, the working environment is highly professional, respect to individuals, and driven by collaboration. The company strives for innovation and supports continuous development through diverse and multidisciplinary teams. In Atkins, they help individuals for their professional as well as personal development. I expect AtkinsRéalis to continue providing a supportive and transparent environment that values professional growth and career progression.

**Academic courses relevant to the project :** Finite Element Analysis (FEA), Strength of Materials (SOM), Theory of Elasticity and Plasticity.

**PS-II STATION: ATKINSREALIS, BENGALURU**

**FACULTY NAME: MUTHUKUMAR G.**

**STUDENT NAME: NAVANEETH KRISHNAN S (2023H1430052P)**

Student Write-up

**PS-II Project Title:** Analysis and design of underground chambers and base slabs in compliance with Eurocode

**Short Summary of work done during PS-II :** Analysis and design of chambers and base slabs. Analysis was done using Robot Structural Analysis. Rcc design was done using HAC spreadsheets. Detail design of trash screen and its components including steel beams, connections, anchorage design using hilti profis. Prepared design reports.

**Tool used (Development tools - H/w, S/w) :** Robot structural analysis, Staad pro, Microsoft Excel, Tekla Tedds, Hilti Profis, HAC spreadsheets

**Objectives of the project :** To learn eurocode provisions and conduct analysis and design of chambers and base slabs in water treatment plants in UK

**Major Learning Outcomes :** Learned Eurocode, Detail design of trash screen, design of chambers

**Details of Papers/patents : NA**



**Brief Description of working environment, expectations from the company :** Working environment is good. There was not much work pressure or extension of work hours. All facilities were provided by company including laptops, keyboard, mouse, headset, bag etc. They gave enough time to learn. But showing interest and enthusiasm is needed to get into projects.

**Academic courses relevant to the project :** Rcc design, steel design, geotechnical engineering

**PS-II STATION: ATKINSREALIS, GURUGRAM**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA .**

**STUDENT NAME: HRITURAJ DEBNATH (2023H1430034P)**

Student Write-up

**PS-II Project Title:** Practice School Learnings and Projects

**Short Summary of work done during PS-II :** The focus of this internship was to gain industry knowledge and exposure by working in different projects throughout the duration of the internship. Introduction to innovative industry solutions like SFRC slab used as ground-supported slabs is presented in this report. A spreadsheet was developed to streamline the design of SFRC slab as per TR34. Description of the digital automation project integrating Autodesk Robot Structural Analysis with Excel VBA via its COM-based API is presented in this report. This tool enables rapid modeling, load application, and flotation checks for rectangular water chambers with minimal manual input. Several projects during the internship were given. Some of the projects, their calculations, results and key learnings are also shared in this report.

**Tool used (Development tools - H/w, S/w) :** Visual Basic Application, Python

**Objectives of the project :** Present the learnings and projects undertaken during the time spent in practice school station.

**Major Learning Outcomes :** Autodesk ROBOT Structural Analysis Software, Design of Water Retaining Structures, Eurocode.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The work environment was supportive, and encouraged us to learn at own pace. It also provided guidance from senior engineers.

**Academic courses relevant to the project :** Design of Reinforced Cement Concrete, Finite Element Analysis, Theory of Plates and Shells.

**PS-II STATION : AVALARA TECHNOLOGIES, PUNE**

**FACULTY NAME: PRAVIN YASHWANT PAWAR .**

**STUDENT NAME: RIJUL BASSAMBOO . (2021A7PS0009P)**

Student Write-up

**PS-II Project Title: VAT Reporting (EMEA Region)**

**Short Summary of work done during PS-II :** During my PS-II internship at Avalara Technologies Pvt. Ltd., I worked on multiple projects spanning automation, backend optimization, and frontend enhancement. My initial tasks involved setting up AWS-hosted tenant databases, automating invoice error handling using PowerShell, and developing a Python-based script to automate the branch cutting process—reducing manual work from 45 minutes to 10 seconds. I also deployed a content QA web application and maintained version consistency with production environments. In the second phase, I addressed key frontend aspects, including debugging a JSON mapping bug that caused UI inconsistencies and creating a new feature to show whether the user was working in a production or test environment—greatly improving testing clarity. My work significantly streamlined internal workflows, improved testing reliability, and enhanced the system’s overall transparency and maintainability.

**Tool used (Development tools - H/w, S/w) :** Languages: C#, Python, PowerShell, SQL Frameworks: .NET, Entity Framework, React.js Dev Tools: Visual Studio, VS Code, SSMS, Postman, Git Cloud/DevOps: AWS, CI/CD pipelines Collaboration: JIRA, Confluence

**Objectives of the project :** Automate key operational workflows such as invoice error handling and release versioning. Improve database performance for content QA systems. Deploy and maintain QA tools aligned with production environments. Enhance frontend reliability and visibility through UI feature additions.

**Major Learning Outcomes :** Hands-on experience in full-stack development using Python, C#, .NET, SQL, and React.js.

Exposure to cloud deployment and infrastructure setup using AWS.

Developed scalable automation tools and UI components to improve QA workflows.

Strengthened debugg

**Details of Papers/patents : N.A.**

**Brief Description of working environment, expectations from the company :** The work environment at Avalara was dynamic, inclusive, and engineering-focused. Interns were treated as contributing team members and were given ownership of meaningful, real-world projects. Daily stand-ups, code reviews, and mentoring sessions were part of the regular workflow. The

company encouraged opportunity-solving, proactive communication, and cross-functional collaboration. I was expected to deliver working solutions, meet sprint timelines, document thoroughly, and participate in testing and deployment workflows. Regular check-ins with my mentor helped align goals and maintain consistent progress. The internship provided a great balance between independence and guidance, fostering both technical growth and team-oriented soft skills.

**Academic courses relevant to the project : Database Systems**

Object-Oriented Programming

Data Structures & Algorithms

Computer Networks Operating

Systems

**PS-II STATION: AXTRIA INDIA PVT. LTD, BENGALURU**

**FACULTY NAME: ARINDAM ROY .**

**STUDENT NAME: AIGAL CHETAS MANJUNATH (2023H1540802P)**

Student Write-up

**PS-II Project Title: Demand Sensing**

**Short Summary of work done during PS-II :** During my PS-II at Axtria, I contributed to developing a scalable Demand Sensing algorithm and Streamlit application to enhance the Forecasting Center of Excellence (CoE). Leveraging Machine Learning and AI, I designed a proof-of-concept (POC) model to deliver precise demand predictions, optimizing Supply Chain Management and Inventory Management. My work focused on building and evaluating models, ensuring high Model Accuracy through rigorous Model Evaluation techniques, including hyperparameter tuning and cross-validation. I implemented the algorithm within a user-friendly Streamlit App, enabling stakeholders to visualize demand insights and make data-driven decisions. The project involved cleaning and preprocessing large datasets, integrating real-time data feeds, and testing the model's scalability to handle diverse client needs. Regular collaboration with the team ensured alignment with business goals, while iterative feedback improved the app's functionality and user experience. The solution expanded the CoE's offerings, strengthening Axtria's analytics capabilities in the life sciences sector. By addressing key challenges in demand forecasting, the project supported better inventory planning and supply chain efficiency, driving potential business growth. My contributions honed my skills in Machine Learning, app development, and client-focused analytics, preparing me for future challenges in data-driven consulting.

**Tool used (Development tools - H/w, S/w) :** Python, SQL, Excel, ML Libraries, Streamlit App.

**Objectives of the project :** Develop a scalable Demand Sensing algorithm and application to enhance the Forecasting CoE offerings.

**Major Learning Outcomes** : Hands on experience with real world data challenges in AI/ML projects, Challenges in forecasting and Supply Chain in Pharma.

**Details of Papers/patents** : -

**Brief Description of working environment, expectations from the company** : Axtria provides a flexible working environment, majorly driven by analytics consulting in lifesciences. Has a dynamic and rapid paced culture basically a giant with a ability to adapt to new innovations like a start up. Expectation from young budding talents are pretty high with expectations with bringing something new on the table.

**Academic courses relevant to the project** : Time series analysis & forecasting (Sem 2), Predictive analytics (Sem 2), Advance Spreadsheet and Programming using Macros (Sem 2), Operations & Supply chain Management (Sem 2), Big Data Analytics (Sem 2)

**PS-II STATION: AXTRIA INDIA PVT. LTD, BENGALURU**

**FACULTY NAME: ARINDAM ROY .**

**STUDENT NAME: VUDAYAGIRI SAI SHIVA KUMAR (2023H1540859P)**

Student Write-up

**PS-II Project Title:** Demand sensing

**Short Summary of work done during PS-II** : Worked on building a Demand Sensing model which is an add-on to demand forecasting to optimize the already generated demand forecast by taking in real time signals like existing market events into consideration and passing them to xgboost model along with historical demand and xgboost generates a signal based on which the original forecast will be adjusted and thus the inventory and supply chain can be planned well. By well I mean more precisely.

**Tool used (Development tools - H/w, S/w)** : Python, Streamlit, Predictive modelling, Advanced Excel, VS Code, Jupyter  
2023h1290012h

**Objectives of the project** : To optimize the demand forecast using ML model and real time signals

**Major Learning Outcomes** : Supply chain Understanding in Pharmaceutical domain

**Details of Papers/patents** : No paper or patent yet

**Brief Description of working environment, expectations from the company** : The working environment is good. Seniors were helpful.

**Academic courses relevant to the project :** Operations and supply chain management, Predictive Analytics, Advanced Spreadsheets and Macros using Excel, Programming For Analytics

**PS-II STATION: BAJAJ ELECTRICALS, MUMBAI**

**FACULTY NAME: SAMEER GUPTA**

**STUDENT NAME: PULKIT DEEPAK SINGLA (2021A3PS2588G)**

Student Write-up

**PS-II Project Title:** Embedded Systems for various Lighting Applications

**Short Summary of work done during PS-II :** During the internship at Bajaj Electricals Ltd., a wide range of embedded system projects focused on lighting applications were undertaken. These included the development of multiple types of data loggers for measuring voltage, current, and temperature, with real-time data being logged to Google Sheets using GSM modules. Projects ranged from a single-channel voltage and current logger to a complex thermal logger using 24 temperature sensors managed via SPI multiplexing. Additionally, smart lighting control systems were developed: a cafeteria lighting controller that dynamically adjusts brightness based on predefined schedules, a RADAR-based street light system that adjusts brightness in response to motion detection, and an Astro Timer product that automates light operation based on solar data. These projects employed microcontrollers such as Arduino, STM32, and RL78/G16, and were programmed using C and Python, while tools like STM32CubeIDE, KiCad, and Google Apps Script were used for development and automation. The work resulted in the delivery of effective prototypes and configurable systems with GUIs for ease of use.

**Tool used (Development tools - H/w, S/w) :** Arduino IDE, STM32CubeIDE, CS+ IDE, KiCad, Google Sheets and Apps Script, Python with PyQt5, C, Arduino, STM32, RL78, GSM Module, PCB Prototyping Tools

**Objectives of the project :** To develop embedded system solutions for lighting applications that improve efficiency, automation, and monitoring.

**Major Learning Outcomes :** Practical experience in embedded system design and firmware development.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The project was done at the R&D (Research and Development) Department of Bajaj Electricals Ltd. in Navi Mumbai. The workplace had modern labs, tools for testing, and equipment for building and checking circuits. Interns got to work on their own while also getting help and guidance from engineers and mentors. The setup allowed us to do everything from building circuits and

designing PCBs to writing software and creating user interfaces. This gave us a lot of practical experience and helped us learn how different parts of a project come together.

**Academic courses relevant to the project :** Embedded System Design, Digital Design, Analog Electronics

**PS-II STATION: BHARAT FORGE LTD., PUNE**  
**FACULTY NAME: NAGA VAMSI KRISHNA JASTI .**  
**STUDENT NAME: SREENATH S (2023H1410111H)**

Student Write-up

**PS-II Project Title:** Failure Mode Effective Analysis of Defense Grade Weapon System

**Short Summary of work done during PS-II :** A weapon system assembly is taken into consideration which the key sub-assembly susceptible to major wear and damages sustains the operational constraints with respect to the forces and temperature it is subjected to, the final reliability percentage is found by individually analysing each component.

**Tool used (Development tools - H/w, S/w) :** Spyder(python), ANSYS, SOLIDWORKS

**Objectives of the project :** Reliability Estimation and Improvement

**Major Learning Outcomes :** Coding, Simulative Testing, Corporate Management

**Details of Papers/patents :** A Study on System Reliability in Weibull Distribution IJIREICE 3297(3):2321-2004 March 2017

**Brief Description of working environment, expectations from the company :** Prompt submission and communication, extremely friendly colleagues, finding the research methodology and narrowing down the solution to finite numbers using plot and numbers within optimal level.

**Academic courses relevant to the project :** Computer Aided Analysis and Design  
Product Design

**PS-II STATION: BIGBASKET, BENGALURU**  
**FACULTY NAME: GAURAV NAGPAL**  
**STUDENT NAME: TEEGALA JAYA VENKATA SRI DHEERAJ (2018B5A10905G)**

Student Write-up

**PS-II Project Title:** Introduction of power filters

**Short Summary of work done during PS-II :** I helped introduce global filters for bigbasket basically if you search anything from catfood, to laptops. The filters you get to help the customer make an informed decision and make navigation easy helps. I also helped Introduce a refined 4th & 5th level category of products, there are 3 layers of category for a product a top level mid-level and low level category, to further sub refine i globally added a 4th & 5th level category

**Tool used (Development tools - H/w, S/w) :** PYTHON, SQL, Excel, Figma, redshift

**Objectives of the project :** Improve filter and navigation of product catalogue in a quick commerce app

**Major Learning Outcomes :** How much work goes into keep a quick commerce app running and how the smallest features can create so much increase in revenue

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Lovely work environment, understanding managers, definitely challenging work and allow you the flexibility to work from home when needed during emergency.

**Academic courses relevant to the project :** Yes

**PS-II STATION: BIGBASKET, BENGALURU**

**FACULTY NAME: GAURAV NAGPAL**

**STUDENT NAME: BHAVYA L NARAYANAN (2020B5A81570G)**

Student Write-up

**PS-II Project Title:** Product Optimization and Subscription Feature Development for BigBasket

**Short Summary of work done during PS-II :** The internship focused on designing and implementing user-centric features across the BB Now platform to enhance monetization, retention, and operational efficiency. Key projects included dynamic splash screen monetization, personalized widgets for high-research categories, a similarity-based SKU recommender engine, lean onboarding experiments, and the conceptualization of a robust subscription framework inspired by the success of BB Daily. Each initiative was structured around rigorous business rationale, technical feasibility, and growth-driven configurations. The outcomes demonstrated measurable business impact and provided deep exposure to product lifecycle thinking, data-led iteration, and stakeholder alignment.

**Tool used (Development tools - H/w, S/w) :** Jupyter, Python, SQL, Postman Figma, Confluence, WebEngage, Jira

**Objectives of the project :** Help optimize the current BB now app, by benchmarking, ideation and execution of new age ideas for Quick Commerce

**Major Learning Outcomes :** Delivered multiple feature specs end-to-end Gained experience with config-first design thinking  
Applied key competitor insights to feature design, especially around personalization, search behavior, and bundling strategies  
Balanced stakeholder feedback

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The work environment fostered quick and creative thinking, with mentors and managers being extremely supportive. The company didn't have any fixed working hours, so it became easy and flexible to find my own rhythm. Interns were expected to understand the business and systems and carve their own niche to add value to the company.

**Academic courses relevant to the project :** Yes

**PS-II STATION: BIGBASKET, BENGALURU**

**FACULTY NAME: GAURAV NAGPAL**

**STUDENT NAME: ANISH HATUA. (2021A8PS0741P)**

Student Write-up

**PS-II Project Title:** Picker ID Creation Automation

**Short Summary of work done during PS-II :** The Picker ID Creation Automation project aimed to reduce onboarding delays for new warehouse associates by automating their system access through integration with Better Place, a third-party background verification platform. Previously, onboarding was manual and took 3–5 days, involving regional IT and HR teams. As the Product SPOC, I led the backend alignment for migrating users from legacy v2 systems to the v3 infrastructure. This involved identifying the user pool, auditing their existing groups and permission seeds, and creating corresponding roles and resources in the v3 system. I defined the system flow for automated ID generation, validation conditions, and edge-case handling for updates and deletions. This automation reduced the onboarding time to under 30 minutes post- verification, ensuring new hires could be deployed instantly without relying on store managers' or incharges' logins. The system also enhanced compliance, minimized idle time, and improved overall workforce utilization.



**Tool used (Development tools - H/w, S/w) :** Software: SQL (for user data extraction and mapping), JIRA (for aspect tracking), Confluence (documentation), internal BB admin tools; Collaboration: Slack, Google Workspace

**Objectives of the project :** Automate the onboarding and system access of new warehouse pickers to eliminate delays and reduce reliance on regional IT/HR teams.

**Major Learning Outcomes :** Understood the backend structure of enterprise systems and how user roles, permissions, and resource mapping affect system access.

Gained experience in coordinating cross-functional teams (Product, HR, IT) to deliver technically aligned outcomes.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Bigbasket was collaborative, fast-paced, and outcome-driven. Interns were treated as integral contributors, with clear ownership of impactful projects. I operated in a hybrid setup, regularly interacting with the product, backend, HR, and SCM teams through standups, sync calls, and weekly reviews.

The expectations from the company were high: interns were expected to independently own their projects, define detailed system logic, collaborate cross-functionally, and deliver solutions ready for production deployment. Initiative, communication, and opportunity-solving were highly valued.

Ample support was available from mentors and team members. Weekly check-ins with product leads helped resolve blockers and refine implementation strategies. Exposure to enterprise tools and business logic in a real-world environment was extensive and invaluable.

Overall, the environment encouraged ownership, initiative, and attention to detail—skills essential for a product or operations role in a fast-scaling organization.

**Academic courses relevant to the project :** DBMS and OOP

**PS-II STATION: BITESPEED - FOUNDER'S OFFICE, BENGALURU**

**FACULTY NAME: PARAG RASTOGI**

**STUDENT NAME: NAMAN MADAN. (2020B3A70851P)**

Student Write-up

**PS-II Project Title:** Driving E-Commerce Success Through AI-Powered Marketing and Sales Optimization

**Short Summary of work done during PS-II :** As a Sales/Founders Office Intern at Bitespeed, an omnichannel marketing, support, and chatbot platform trusted by 2500+ D2C brands. The primary focus involved managing premium client accounts (80% of time) with particular emphasis on Vilvah Skincare, a progressive skincare brand operating across 60+ countries, and sales & business development activities (20% of time). The project demonstrates successful integration of AI technology in e-commerce marketing while developing comprehensive sales and client management competencies

**Tool used (Development tools - H/w, S/w) :** Hubspot, CleverTap, Python, Gong.io

**Objectives of the project :** Increase client revenue by doing different types of marketing

**Major Learning Outcomes :** Deep Client Engagement Competencies, E-Commerce Ecosystem Understanding, Advanced Platform Expertise, Strategic Sales Competencies

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The work environment was like a budding company, more hands on practical environment rather than fixed hours, very dynamic.

**Academic courses relevant to the project :** Print Audio Visual Media

**PS-II STATION: BITGO, BENGALURU**

**FACULTY NAME: LUCY J. GUDINO**

**STUDENT NAME: SAKSHI JOSHI (2023H1030048G)**

Student Write-up

**PS-II Project Title: Staking Service**

**Short Summary of work done during PS-II :** I worked on the staking service team, focusing on integrating staking mechanisms for coins onboarded onto the wallet platform. My role involved researching the staking flow for each coin, understanding its unique requirements, and implementing changes to enable a seamless staking experience. This included tasks such as enabling users to stake and unstack their holdings, claim rewards, and monitor staking activity effectively. The process began with in-depth research into the coin's staking protocol, exploring technical documentation and sandbox environments to ensure a thorough understanding of its flow. Based on this research, I implemented, tested, and refined the staking functionalities, ensuring compliance with the platform's standards for security and usability. This required collaborating with cross-functional teams to address challenges such as protocol-specific quirks,

user interface adjustments, and backend compatibility. Beyond technical execution, I contributed to enhancing the documentation of staking flows to streamline future integrations. By detailing processes and findings, I ensured better knowledge sharing and reduced onboarding time for subsequent projects.

**Tool used (Development tools - H/w, S/w) :** Software used -JS/TS ,Node ,Kotlin ,IntelliJ, VS Code ,Git

**Objectives of the project :** Provide Staking support for crypto coins on system

**Major Learning Outcomes :** During my internship at BitGo, I experienced significant personal and professional growth while working in the highly challenging staking service team. One of the primary outcomes was an in-depth understanding of blockchain technology.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** My internship at BitGo provided an immersive experience in a fast-paced, dynamic work environment that emphasized innovation and collaboration. I was entrusted with critical responsibilities, including implementing staking mechanisms for coins onboarded onto the wallet platform. This required deep dives into the technical aspects, researching new technologies, and collaborating across multiple teams to understand the nuances of the codebase.

The working environment encouraged independence while providing support when needed. Regular discussions with the manager and senior developers helped clarify complex concepts, ensuring tasks were completed efficiently. Despite being an intern, I felt like an integral part of the team and was expected to deliver work with precision and adherence to deadlines.

The company had high expectations, particularly in terms of technical expertise, opportunity- solving abilities, and adaptability to new challenges. Tasks were often complex and required careful attention to detail. Additionally, the internship encouraged proactive communication and resourcefulness, which pushed me to learn quickly and handle multiple priorities effectively.

Overall, the experience was challenging but rewarding, offering invaluable professional growth opportunities and technical exposure in the rapidly evolving blockchain and cryptocurrency industry.

**Academic courses relevant to the project :** Blockchain ,Network Security ,Web Development

**PS-II STATION: BITGO, BENGALURU**

**FACULTY NAME: LUCY J. GUDINO**

**STUDENT NAME: ABHILASH TRIPATHI (2023H1120199P)**

Student Write-up

## **PS-II Project Title: AuditLog Service Integration and RBAC Enhancements**

**Short Summary of work done during PS-II :** Developed and integrated an Audit Logs module for administrators, fixed critical address whitelisting and key sharing aspects, implemented a new Auditor role with appropriate permissions, enhanced the RBAC system, and configured a centralized Audit Log Service to improve system oversight.

**Tool used (Development tools - H/w, S/w) :** TypeScript, Kotlin, SpringBoot, Node.js, MongoDB, Angular, Mocha, Playwright, Grafana, Docker, Git, VS Code, Jira

**Objectives of the project :** Improve administrative oversight, implement comprehensive audit logging, and develop role-based access control mechanisms.

**Major Learning Outcomes :** Gained expertise in enterprise systems administration, developed proficiency in modern tech stacks, learned operational requirements in FinTech, mastered cloud- native infrastructure, and acquired skills in system design and integration.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** BitGo offered a collaborative and innovative working environment focused on blockchain technology. The company maintained high standards for code quality, best practices, and technical excellence. Teams worked in an agile methodology with regular stand-ups, sprint planning, and retrospectives. As an intern, I was expected to contribute meaningful work to production systems while adhering to strict coding standards and protocols. BitGo provided excellent mentorship opportunities through senior engineers who offered guidance and code reviews. The company culture emphasized continuous learning, technical growth, and staying updated with the latest developments in blockchain technology. There was a strong emphasis on taking ownership of projects while understanding how individual contributions fit into the larger product ecosystem. The fast-paced environment required adaptability and quick opportunity-solving skills while maintaining attention to detail, particularly important in a financial product.

**Academic courses relevant to the project :** Database Management Systems, Software Engineering, Computer Networks, Distributed Systems, Web Development, Cloud Computing.

**PS-II STATION: BLACKROCK AFE, GURGAON**

**FACULTY NAME: NISHIT NARANG**

**STUDENT NAME: ADITYA RAJSHEKHAR HALLI (2020B4A81851G)**

Student Write-up

**PS-II Project Title:** Maximising Efficiency in Big Data Pipelines

**Short Summary of work done during PS-II :** Build efficient pipelines to handle Big Data, loading and extraction of data to and from databases and cloud.

**Tool used (Development tools - H/w, S/w) :** Scala, Apache Spark, Python, Sybase, Snowflake

**Objectives of the project :** Build efficient and scalable pipelines to handle big data

**Major Learning Outcomes :** Financial terms Concepts, Scala, Apache Spark, Big Data

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Good, friendly and helpful environment with a lot of facilities given from the company

**Academic courses relevant to the project :** OOPs, OS, DBMS, DSA

**PS-II STATION: BLACKROCK QAE, GURGAON**

**FACULTY NAME: NISHIT NARANG**

**STUDENT NAME: SOHAM BARUI (2020B3AA1170H)**

Student Write-up

**PS-II Project Title:** Development of Servers

**Short Summary of work done during PS-II :** Worked on developing a server for aggregation of data and then perform processes on the data to create & send response to clients.

**Tool used (Development tools - H/w, S/w) :** Java, IntelliJ, proprietary software and tools.

**Objectives of the project :** To develop servers for Quantitative calculations

**Major Learning Outcomes :** Learnt about finance, production ready code practices. Learnt about backend development.

**Details of Papers/patents :** Classified

**Brief Description of working environment, expectations from the company :** Company is very good. Very supportive environment. They expect you to learn more that work. They have a collaborative culture. You can go up to anyone and ask for help/guidance.

**Academic courses relevant to the project :** Operating Systems, OOPs, the rest can be learnt as you go.

**PS-II STATION: BLACKROCK QAE, GURGAON**

**FACULTY NAME: NISHIT NARANG.**

**STUDENT NAME: TRIPATHI ABHAY A (2023H1120190P)**

Student Write-up

**PS-II Project Title:** Enhancements on Factor Based Risk and Returns Calculation Tools

**Short Summary of work done during PS-II :** Developed a custom library to streamline running applications in configuration mode by dynamically loading and instantiating template-based objects using XML configurations. Core contributions included building a utility to parse configuration files, implementing custom annotations for entity-template mapping, and leveraging reflection for dynamic object creation. Designed services to manage entity lifecycles and instantiate components with config values, while introducing entity- and component-level caching to optimize performance. The library was comprehensively tested, integrated with existing applications, and validated through regression testing. Additionally, contributed to the modernization and performance optimization of a returns calculation application by replacing legacy RPC calls, consolidating data fetches, and analyzing factor-based return computations using Python scripting. Optimized SQL queries by generalizing logic, removing unnecessary joins, introducing date range filtering, and applying alternatives to window functions. Implemented query caching to reduce database load, leading to measurable improvements in application efficiency.

**Tool used (Development tools - H/w, S/w) :** Java, IntelliJ IDEA, MobaXterm, Azure DevOps

**Objectives of the project :** Developed a custom library to streamline running applications in configuration mode by dynamically loading and instantiating template-based objects using XML configurations. Core contributions included building a utility to parse configuration files, implementing custom annotations for entity-template mapping, and leveraging reflection for dynamic object creation. Designed services to manage entity lifecycles and instantiate components with config values, while introducing entity- and component-level caching to optimize performance. The library was comprehensively tested, integrated with existing applications, and validated through regression testing. Additionally, contributed to the modernization and performance optimization of a returns calculation application by replacing legacy RPC calls, consolidating data fetches, and analyzing factor-based return computations using Python scripting. Optimized SQL queries by generalizing logic, removing unnecessary joins, introducing date range filtering, and applying alternatives to window functions. Implemented

query caching to reduce database load, leading to measurable improvements in application efficiency.

**Major Learning Outcomes** : Deep dived into Spring internal working for topics like object lifecycle management and have improved my understanding of spring framework.  
Enhanced my understanding of java concepts learning and using new topics like reflection and custom-built annotation.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company** : The working environment is great. Mentors and colleagues are supportive and helpful. Interns were given ample time and structured training to gain familiarity with relevant technologies, system architecture, and project responsibilities. The expectation from the company for interns is to apply the knowledge gained to complete the assigned tasks within deadlines

**Academic courses relevant to the project** : Software Architectures, Object Oriented Analysis and Design

**PS-II STATION: BLACKROCK QAE, MUMBAI**

**FACULTY NAME: NISHIT NARANG**

**STUDENT NAME: ARIN VERMA (2020B3A71847H)**

Student Write-up

**PS-II Project Title: Pricing Interface Server**

**Short Summary of work done during PS-II** : • Designed and implemented a complete pricing framework for Inflation-Linked Bonds (ILBs) within BlackRock's proprietary pricing server. • Implemented infrastructure to support shocking of inflation curves, enabling scenario-based pricing and risk analysis under varying inflation assumptions.

**Tool used (Development tools - H/w, S/w)** : Clion ,MobaXTerm, Pycharm

**Objectives of the project** : To implement new asset classes inside the Pricing Server with optimized code and minimum latency

**Major Learning Outcomes** : C++, Python, Understanding of various asset classes

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Company expects candidates to have a positive learning attitude and picking up things quickly while helping others

**Academic courses relevant to the project :** DSA, OOPS, OS, DBMS

**PS-II STATION: BLACKROCK QAE, MUMBAI**

**FACULTY NAME: NISHIT NARANG**

**STUDENT NAME: MOHD. ASHRAF ANSARI (2023H1030080P)**

Student Write-up

**PS-II Project Title:** CLO Model on-the-fly

**Short Summary of work done during PS-II :** The on-the-fly service would invoke a model which will generate analytics for the CLO security. This model is written in Python and the service is based on C++. In future, there'll be more models that will be integrated to generate CLO analytics.

**Tool used (Development tools - H/w, S/w) :** C++, Python, Rust, CLion, Azure DevOps

**Objectives of the project :** To create an on-the-fly service for CLO security

**Major Learning Outcomes :** 1. Software Development in C++, Python  
2. About Collateralized Loan Obligations security

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Great culture here at BlackRock. Everyone was supportive and encouraged me to try and experience different fields of work. A very good exposure to technology and finance.

**Academic courses relevant to the project :** Advanced Operating Systems, Object oriented programming.

**PS-II STATION: BLOKTREK, BENGALURU**

**FACULTY NAME: LUCY J. GUDINO**

**STUDENT NAME: NISHANT. (2020B2A41952P)**

Student Write-up

**PS-II Project Title:** Frontend Web Development



**Short Summary of work done during PS-II :** A major highlight of my internship has been working extensively with ReactJS and Material UI to build dynamic, reusable, and responsive UI components. Through Redux and hooks, I developed a deep understanding of component life cycles, global state management, and optimized rendering strategies. I worked on several interactive features including drag-and-drop interfaces, pagination, auto-complete inputs, and modular rendering that collectively improved user interactivity and engagement. My API work included integrating a variety of REST endpoints, using tools like Swagger to test and debug effectively. I handled large datasets efficiently by implementing pagination and lazy loading where necessary. In terms of user experience optimization, I identified pain points in existing components and improved usability by introducing real-time feedback, localized loaders, and bulk-action features like subtheme refresh and competitor data downloads.

**Tool used (Development tools - H/w, S/w) :** Redux, VS Code, Swagger, Jira, Github

**Objectives of the project :** To implement new features, optimize existing features and handle bugs for product website

**Major Learning Outcomes :** This internship refined my proficiency in frontend development, API handling, UI/UX design, and real-world debugging. I gained valuable experience with GitHub workflows, team collaboration, and architectural understanding of large-scale React applications

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Work environment was very friendly. They allowed us to learn and work on our pace. And if there is some aspect there is always someone to help. Small team so bonding was good.

**Academic courses relevant to the project :** OOPS

**PS-II STATION: BLOKTREK, BENGALURU**

**FACULTY NAME: LUCY J. GUDINO**

**STUDENT NAME: VIDHI CHETAN SHAH (2021A3PS2645H)**

Student Write-up

**PS-II Project Title:** Backend Development of GenAI powered Private Markets Platform

**Short Summary of work done during PS-II :** I was involved in various tasks- creating a service for data insertion, adding caching to several services to reduce load times, prompt engineering and testing for document ingestion, creating new APIs as per site requirements, automating description generation process and regularly debugging production aspects.

**Tool used (Development tools - H/w, S/w) :** VS Code, Swagger, Python, AWS, MongoDB

**Objectives of the project :** I wasn't assigned a single specific project. I worked on creating different APIs (features) for the platform as well as debugging production aspects.

**Major Learning Outcomes :** I got to be part of a dynamic and growth-oriented startup environment where I worked on production aspects from day one- whether it involved debugging or writing new APIs or refactoring. I was part of the backend development team but was worked with the data science team,

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The nature of work in the company is fast-paced. From day one, you are handed tasks that make a direct impact on the platform. All the team members are extremely approachable and helpful. There is freedom to complete a task as you like on time and the tech leads are always open to newer and more efficient ideas. They expect you to be proactive in discussions and put forth new ideas once you are comfortable with the topic at hand.

**Academic courses relevant to the project :** OOPs, DBMS, CP, ML, AI

**PS-II STATION: BLOKTREK, BENGALURU**

**FACULTY NAME: LUCY J. GUDINO**

**STUDENT NAME: ISHA PARGAONKAR (2021A3PS2803H)**

Student Write-up

**PS-II Project Title:** Generative AI powered platform for private company analysis

**Short Summary of work done during PS-II :** My work as a data science intern in Bloktrek was mainly focused on prompt creation for new functionality on the platform, or refactoring existing code to improve working of the platform. I also worked on adding a new functionality from start to end on the platform which provided a great learning experience and I got to experience how feature building and deploying happens on the product side.

**Tool used (Development tools - H/w, S/w) :** VSCode, Studio3t

**Objectives of the project :** Build a platform using generative AI to: 1)Provide a conversational interface to private company data using generative AI. 2)Use a variety of cutting-edge AI models and develop additional models for the platform 3)Ingest and process data from various sources such as MCA filings, news and internally sourced data and store it in a manner that can be easily consumed by the generative AI engine. 4)Integrate with web search capabilities 5)Create a high quality user interface with rich user experience.

**Major Learning Outcomes :** 1. Creation of APIs  
2. Making openai calls through azure openai deployment  
3. Learnt how to build start to end functionality on a platform, from research about building a functionality to finale testing before deployment

**Details of Papers/patents: -**

**Brief Description of working environment, expectations from the company:** The working environment was good. All the team members were very supportive and helpful, they helped me learn and clarify any doubts throughout the internship. I also got to work closely and interact with and exchange ideas with the co-founders.

**Academic courses relevant to the project:** Database Systems, Machine Learning

**PS-II STATION: BLUE STAR LIMITED, MUMBAI**

**FACULTY NAME: BENU MADHAB GEDAM.**

**STUDENT NAME: NAIPUNYA MANOJ PATIL (2023H1060157P)**

Student Write-up

**PS-II Project Title:** Alternative Cooling Technology Project

**Short Summary of work done during PS-II :** As India's economy expands, the demand for air conditioning is projected to rise, increasing energy consumption and straining the power supply. This project aims to explore and develop an alternative cooling technology to replace or enhance the existing Vapor Compression Refrigeration System (VCRS) with a more energy-efficient solution. The primary objective is to improve the Coefficient of Performance (COP) while reducing overall energy usage. The research investigates advanced cooling technologies such as magnetocaloric, electrocaloric, bar caloric, and thermoelectric cooling, along with other innovative approaches. By evaluating these alternatives, the project seeks to develop a sustainable and efficient cooling system suitable for India's growing energy demands.

Tool used (Development tools - H/w, S/w) : NA

**Objectives of the project :** project aims to explore and develop an alternative cooling technology to replace or enhance the existing Vapor Compression Refrigeration System (VCRS) with a more energy-efficient solution.

**Major Learning Outcomes :** Alternative Cooling Technology , HVAC Product

**Details of Papers/patents :** Not allowed to share

**Brief Description of working environment, expectations from the company :** Bluestar offers a professional and dynamic working environment focused on innovation in HVAC and refrigeration technologies. The company fosters a culture of collaboration, learning, and continuous improvement. Employees are encouraged to take ownership of their responsibilities, work cross- functionally, and contribute to product development and customer satisfaction.

**Academic courses relevant to the project :** RAC, CFD, Fluid Mechanics , Heat Transfer

**PS-II STATION: BOTANIC HEALTHCARE, HYDERABAD**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: NIKHIL SUNIL PATIL (2023H1010016H)**

Student Write-up

**PS-II Project Title:** Solvent recovery optimization in Herbal extract industry

**Short Summary of work done during PS-II :** Daily monitoring and data collection for solvent recovery at different stages Mitigation strategy for solvent loss by optimizing temperature , vacuum distillation and increasing blow off timings. Resizing the cooling tower line for increased cooling tower load. Checking the relaxed and balanced water out line for relaxed and balanced water in heat exchanger line. Deriving the mitigation strategy for solvent recovery by observing SCADA Data for insights. Daily discussion with mentor to tackle solvent loss through pressure release valve and putting PLC controller for that valve. Monitoring and collecting data for solvent loss for per tons of raw material after implementation of measures.

**Tool used (Development tools - H/w, S/w) : MS-EXCEL**

**Objectives of the project :** To reduce the solvent loss per kg of raw material charged.

**Major Learning Outcomes :** Real world industrial Data collection and deriving insights from data Applying the knowledge of core chemical engineering subjects like chemical reaction engineering ,Mass transfer, Heat transfer and fluid mechanics in industrial Process engineering Pres

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** he experience broadened my understanding of workplace operations and professional expectations. I learned to handle tasks with accountability and initiative.

**Academic courses relevant to the project :** Heat transfer, Mass transfer, Chemical reaction engineering, Fluid mechanics

**PS-II STATION: BOTANIC HEALTHCARE, HYDERABAD**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: GHOLAP DARSHANI SANDEEP (2023H1290006H)**

Student Write-up

**PS-II Project Title:** Extraction and Standardization of Banana Peel Extract for Dietary Fibers

**Short Summary of work done during PS-II :** During my internship at Botanic Healthcare, I worked on the extraction and standardization of banana peel extract for its dietary fiber content and bioactive constituents, focusing on dopamine. My work began with comparative extraction of banana peel and fruit using water and methanol, followed by TLC pattern development. Based on yield and elution behavior, banana peel extract was finalized. I then optimized dopamine detection via TLC and isolated it using column chromatography. I also contributed to other projects such as spray drying of green coffee extract, extraction of Mucuna seeds for L-Dopa, and development of TLC profiles for curry leaves and senna extract. The internship enhanced my practical lab skills, critical thinking, and understanding of phytochemical processes in an industrial R&D setting.

**Tool used (Development tools - H/w, S/w) :** Demandingware: Soxhlet extractor, rotary evaporator, column chromatography setup, TLC chamber Software: MS Excel, SAP , Documentation tools

**Objectives of the project :** To extract dietary fibers and active phytochemicals from banana peel. To isolate and identify bioactive compounds such as dopamine using chromatographic techniques. To develop and optimize TLC profiles and standardize extraction methods. To study solvent efficiency, yield optimization, and downstream processing.

**Major Learning Outcomes :** Hands-on experience in extraction and purification of plant phytochemicals

Developed TLC and column chromatography skills

Learned how to optimize solvent systems and extraction protocols

Exposure to industrial R&D workflow and documentation Analytical

**Details of Papers/patents :** None yet (internship-based project)

**Brief Description of working environment, expectations from the company :** The R&D facility at Botanic Healthcare offers a dynamic environment focused on innovation and scientific rigor. The lab maintained professional standards with a strong emphasis on SOPs, documentation, and safety. I was provided with opportunities to independently handle experiments and contribute ideas. Regular meetings with scientists and supervisors helped align work with industrial expectations. The company expects interns to be self-driven, meticulous, and open to learning

interdisciplinary concepts in real-time. The experience offered me valuable insights into how industrial research is carried out, preparing me for future roles in R&D.

**Academic courses relevant to the project :** Analytical Techniques in Biotechnology

**PS-II STATION: BOTANIC HEALTHCARE, HYDERABAD**

**FACULTY NAME: BHARATHI R.**

**STUDENT NAME: ARITRA CHANDRA (2023H1290011H)**

Student Write-up

**PS-II Project Title:** Extraction, Standardization, Analytical Validation & Phytochemical Profiling of *Raphanus sativus*

**Short Summary of work done during PS-II :** During my PS-II at Botanic Healthcare, Hyderabad, I worked on extracting and standardizing phytoconstituents from white radish (*Raphanus sativus*) for nutraceutical applications. I conducted extractions using fresh radish (juice extraction, 35% yield) and dried radish with RO water (32% yield) and 70% ethanol (46% yield). The 70% ethanol extract (BHC/LNB/175/015A) showed the highest polysaccharide content (58.27% via acetone ppt), while the water extract (BHC/LNB/160/059A) had higher flavonoids (0.31%). I performed Thin-Layer Chromatography (TLC) using Toluene: Ethyl Acetate: Formic Acid (5.5:4.5:0.5), identifying 5-6 spots for polar phytoconstituents. UV spectroscopy quantified flavonoids ( $\text{AlCl}_3$  method) and polyphenols (Folin-Ciocalteu method), with polyphenols being nil in both extracts. Polysaccharides were measured gravimetrically using acetone and methanol precipitation. I also standardized glycosides preparation, ensuring consistent reagent (1% Vanillin-Perchloric Acid, 37% Sulfuric Acid) and STD solutions. The project confirmed the potential of white radish extracts in nutraceuticals, supporting gut health and antioxidant effects. My contributions included conducting experiments, analyzing data, and documenting findings, providing insights into optimizing extraction methods and phytochemical profiling for pharmaceutical applications.

**Tool used (Development tools - H/w, S/w) :** 1. Demandingware: Rotary evaporator, UV spectrophotometer, TLC chamber, Analytical balance, Sonicator, Oven, Freezer, Centrifuge, Hot plate with magnetic stirrer, pH meter, Vortex mixer, Filtration assembly, Water bath, Refractometer, Soxhlet extractor, Microc

**Objectives of the project :** 1. Compare efficiency of aqueous and ethanolic extraction on fresh and dried white radish. 2. Assess extraction conditions for better quality, focusing on concentration and variety of phytoconstituents. 3. Evaluate and compare: 3a) Flavonoids via colorimetric/UV method. 3b) Polyphenols via Folin-Ciocalteu method. 3c) Polysaccharides via acetone and methanol precipitation methods.

**Major Learning Outcomes :** 1. Mastered extraction techniques: juice extraction, solvent-based extraction, rotary evaporation.

2. Gained proficiency in analytical methods: TLC, UV spectroscopy, gravimetric analysis.  
Learned standardization: prepared reagents ( $\text{AlCl}_3$ , Folin) and stand

**Details of Papers/patents : Nil**

**Brief Description of working environment, expectations from the company :** At Botanic Healthcare, Hyderabad, the working environment was professional and conducive to research, with a well-equipped lab featuring tools. The team fostered collaboration through regular discussions, creating a supportive atmosphere for innovation in phytochemical research. Safety protocols were strictly enforced, ensuring a secure workspace, while the structured schedule (9:30 AM to 6:00 PM) allowed for efficient time management.

I expected hands-on training in advanced analytical techniques, which was met through practical exposure to TLC, UV spectroscopy, gravimetric analysis, HPLC and GC. I also anticipated mentorship on standardization processes, fulfilled by guidance on reagent preparation and glycosides standardization. The company exceeded expectations by providing opportunities to work on diverse projects, such as chamomile TLC and Terminalia Arjuna bark extraction, broadening my research scope. I hoped for constructive feedback to enhance my skills, and the team delivered through regular reviews, helping me improve experimental design and data interpretation. Additionally, I expected access to modern equipment, which was readily available, enabling precise analysis like polysaccharide quantification. Overall, Botanic Healthcare offered a nurturing environment, significantly enhancing my practical expertise in phytochemistry and preparing me for future research endeavors.

**Academic courses relevant to the project : Yes**

**PS-II STATION: BOTANIC HEALTHCARE, HYDERABAD**

**FACULTY NAME: BHARATHI R.**

**STUDENT NAME: BIDISHA GANGULY (2023H1290012H)**

Student Write-up

**PS-II Project Title: Liposomal nutraceutical product development**

**Short Summary of work done during PS-II :** Liposomal product development involves encapsulating bioactive compounds like fish collagen, bacopa, and piperine within lipid bilayers to enhance their stability and bioavailability. A typical production process includes high-pressure homogenization and spray drying. High-pressure homogenization reduces liposome size to the nanoscale, improving encapsulation efficiency and stability. Spray drying then transforms the liposomal suspension into a free-flowing powder, facilitating easier handling and storage. After formulation, the liposomal product undergoes rigorous quality control (QC) testing to ensure its suitability for consumer use. Key parameters assessed include: Solubility Ensures the liposomal formulation can release active ingredients effectively. pH Monitors the acidity or alkalinity, which can affect stability and bioactivity. Loss on Drying (LOD) Determines residual moisture content,

indicating potential for microbial growth and shelf-life. Bulk Density (BD): Assesses the powder's packing and flow properties, influencing processing and formulation. Tapped Density (TD) Indicates the powder's compressibility and porosity, important for tablet formulation. These QC tests ensure that the liposomal products meet the required standards for efficacy, safety, Liposomal dispersion and dry powder formulations comprising oligonucleotides having improved downstream processing properties.

**Tool used (Development tools - H/w, S/w) :** High pressure homogenizer, Spray dryer, sonicator, High shear homogenizer, mechanical stirrer

**Objectives of the project :** To increase absorptivity and bioavailability of various nutraceutical products

**Major Learning Outcomes :** Learnt how to formulate to make a product, time management, team work, social exposure, phytochemistry based area exploration

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Company environment and people over there were good. It was good first learning experience in an industry.

**Academic courses relevant to the project :** Biochemistry, upstream development

**PS-II STATION: CADENCE DESIGN SYSTEMS, BENGALURU**

**FACULTY NAME: SANJAY VIDHYADHARAN.**

**STUDENT NAME: VISHRUT SHAH (2021AAPS2957H)**

Student Write-up

**PS-II Project Title:** Custom Digital Serializer Design for DDR memory

**Short Summary of work done during PS-II :** I was assigned the serializer block in cadences ddr ip, and i modified it to work at a higher speed

**Tool used (Development tools - H/w, S/w) :** Cadence Virtuoso

**Objectives of the project :** To modify an existing serializer design to make it work at higher speeds.

**Major Learning Outcomes :** Analog design flow



**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Great team, very supportive and helpful. They expect you to be consistent, punctual with deadlines and to provide quality work. Learning wise, they help you a lot, and they give you the confidence to be able to figure things out yourself.

**Academic courses relevant to the project :** Electrical Sciences, Digital Design, ADVD, Analog Electronics, control systems, Signals and Systems.

**PS-II STATION: CADENCE DESIGN SYSTEMS, PUNE**

**FACULTY NAME: SANJAY VIDHYADHARAN.**

**STUDENT NAME: SARVESH BHAGTANI (2021A8PS2741G)**

Student Write-up

**PS-II Project Title:** Physical Design Implementation and Methodology

**Short Summary of work done during PS-II :** During my internship, I got the opportunity to work upon backend implementation of Digital IPs owned by my team. The aim was to meet the PPA target benchmark already achieved in some other flow. Parallely I worked upon developing some Python based scripts for automation purposes, few of which have been deployed on Jenkins to make technology enablement more smoother within the flow.

**Tool used (Development tools - H/w, S/w) :** Cadence EDA Tools, Python, TCL, CSH, Linux

**Objectives of the project :** Digital design implementation of Cadence IPs using Cadence EDA tools. Development, automation and maintenance of EDA flows and scripts for physical implementation.

**Major Learning Outcomes :** Got a hands-on experience in Digital IP Implementation using Cadence EDA tools, along with some exposure in developing Python-based automation utilities

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Cadence offers an inclusive environment for individual to learn and enjoy their time there.

**Academic courses relevant to the project :** ADVD, Digital Design, Computer Architecture

**PS-II STATION: CAPITAL ONE, BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.**

**STUDENT NAME: DHRUV SHRIMALI. (2021A7PS0008P)**

Student Write-up

**PS-II Project Title: Scaling Catalog Ingestion Framework**

**Short Summary of work done during PS-II :** During my PS-II internship, I worked on integrating a custom metadata sink with OpenMetadata (OMD), adapting it to interface with my organization's internal Data Catalog API (DCA). The primary objective was to modify OMD's metadata ingestion framework so that, instead of sending metadata to the default OMD backend, it would push it to our custom backend. This required understanding OMD's architecture, particularly its sink and workflow design. I began by analyzing the existing ingestion and sink flow, followed by developing a new sink that supports our API's endpoints. I configured the system to point to our internal servers, handled GET and PUT requests, and resolved multiple compatibility aspects. Testing was done across multiple platforms including Redshift, Snowflake, and AWS Glue. Throughout the internship, I followed best practices such as not pushing secrets to Git, replacing sensitive data in logs, and using consistent logging levels. I also learned how to create custom logging levels to trace specific failures, wrote unit tests to validate my changes, and integrated the entire pipeline into Airflow for production readiness. In parallel, I maintained detailed documentation, created a demo setup, and coordinated with my mentor and backend team to ensure alignment with internal standards. I also practiced sprint planning and mock estimation to better understand agile workflows. By the end of the internship, I had delivered a complete, tested, and documented solution for metadata ingestion into the internal DCA, and gained strong practical experience in backend development, debugging, documentation, and production-grade software practices.

**Tool used (Development tools - H/w, S/w) :** VS Code, Insomnia, Docker, Airflow

**Objectives of the project :** Increase number of platforms supported for our products catalog view

**Major Learning Outcomes :** Improvement in Python skills, learnt Go, React and REST API.

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** The working environment during my PS-II internship was professional, collaborative, and highly supportive of learning. I was part of a backend engineering team focused on building and maintaining internal data infrastructure. The company emphasized ownership and initiative, encouraging interns to take end-to-end responsibility for their assigned modules. Despite being hybrid, communication was clear and frequent through platforms like Slack, Google Meet, and Jira.

My mentors were approachable and always willing to help, but at the same time, I was expected to explore and attempt solutions independently before seeking assistance. Regular check-ins

ensured that I stayed aligned with project goals and timelines. The company valued code quality, documentation, and adherence to industry standards, which pushed me to go beyond what I had learned in college.

I was expected to understand and work with large, unfamiliar codebases, write clean, production-level code, follow secure coding practices (like not exposing secrets or credentials), and collaborate effectively with other teams. Meeting deadlines, estimating task efforts accurately, and participating in sprint planning were also key expectations.

The overall environment promoted both technical and professional growth. I was given enough freedom to explore, make mistakes, and learn from them, while still being accountable for deliverables. This balance of autonomy and guidance helped me grow in confidence and skill, making the experience both challenging and rewarding.

**Academic courses relevant to the project :** OOPS, DSA, DBS

**PS-II STATION: CAPITAL ONE, BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.**

**STUDENT NAME: SHUBHAM GUPTA. (2021A7PS0468P)**

Student Write-up

**PS-II Project Title:** Autogenerated test suite for templates

**Short Summary of work done during PS-II :** Created a utility to create testcases for Templates for Spotify's backstage. Also contributed to templates for Capital Ones internal portal

**Tool used (Development tools - H/w, S/w) :** IntelliJ, TS, Backstage by Spotify

**Objectives of the project :** Make a tool to create tests for templates

**Major Learning Outcomes :** Learnt TS and different testing styles.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Good office culture

**Academic courses relevant to the project :** Yes

**PS-II STATION: CAPITAL ONE, BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.**

**STUDENT NAME: PRATEEK KASHYAP. (2021A7PS1449P)**

## **PS-II Project Title:** Creation of Search Engine Marketing – Dealer Management API

**Short Summary of work done during PS-II :** I interned at Capital One, Bengaluru, as part of the SEM–VLA initiative, aimed at helping auto dealers advertise on Google Search. My primary contribution was building backend Dealer Management APIs using Java Spring Boot to handle CRUD operations on dealer data stored in Amazon Aurora. I also implemented asynchronous Spring Batch jobs triggered via POST endpoints to onboard, refresh, and offboard inventory listings. These workflows were integrated with Google’s Product and Product Status APIs to fetch real-time data. Observability was achieved using OpenTelemetry, with dashboards in New Relic and logs in Splunk. The project modernised the ad setup process, reduced manual effort, and improved ad readiness by 40%. I also gained hands-on experience with Agile, CI/CD, and cloud deployments.

**Tool used (Development tools - H/w, S/w) :** Java, Spring Boot, PostgreSQL, Amazon Aurora, GitHub, IntelliJ, DataGrip, Swagger/OpenAPI, JUnit, Karate, Apache JMeter, OTEL, New Relic, Splunk, Docker, AWS CloudWatch

**Objectives of the project :** Automate dealer onboarding and inventory management using scalable APIs, Enable seamless integration with Google Ads and Merchant Center, Replace manual workflows with cloud-native batch jobs, Improve ad readiness and visibility of dealer listings

**Major Learning Outcomes :** - Building enterprise-grade REST APIs using Java Spring Boot

- Integrating with Google Ads and Merchant Center APIs
- Implementing asynchronous batch job systems
- Cloud-native deployment with observability tools like OTEL and New Relic
- Working in Agile

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Capital One offered a collaborative and technically stimulating environment. The Bengaluru team, part of Capital One DataLabs, provided guidance through code reviews, design discussions, and Agile ceremonies like daily stand-ups and sprint planning. The work culture was inclusive, with a strong emphasis on ownership and innovation. Interns were treated like full-time engineers and given responsibility for production-facing systems. Expectations included writing clean, testable code, understanding system architecture, and proactively engaging with mentors and peers. The internship provided valuable exposure to enterprise software practices, cloud-based infrastructure, and real-world product impact.

**Academic courses relevant to the project :** Object-Oriented Programming, Database Systems, Data Structures and Algorithms

**PS-II STATION: CAPITAL ONE, BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.**

**STUDENT NAME: SIDDHARTH S SHAH. (2021A7PS2428P)**

Student Write-up

**PS-II Project Title:** Template contribution and Automated Generation of End-to-End Test Cases

**Short Summary of work done during PS-II :** During my Practice School-II internship at Capital One's Bangalore office, I contributed to enhancing the Internal Developer Platform (IDP) by focusing on automation and cross-language standardization. My primary work involved building an **auto generator for end-to-end (E2E) test cases** for Backstage software templates using **TypeScript** and **Playwright**, with test scenarios defined in **Gherkin** syntax to ensure clarity and maintainability. This tool significantly reduced manual testing efforts, improved test coverage, and increased developer productivity. Additionally, I contributed to the **Python parity implementation** for the **Container Fargate Consumer template**, ensuring consistency with the existing TypeScript version. This allowed teams working in different language ecosystems to benefit equally from the same template infrastructure. The work was executed in an **Agile environment**, involving sprint planning, daily stand-ups, and peer reviews. I utilized tools like **GitHub**, **JIRA**, and **Docker Compose** to maintain development consistency, facilitate collaboration, and enable local testing. My contributions not only improved testing workflows and promoted template-based development practices but also aligned with Capital One's digital-first and automation-driven strategy. The internship offered valuable exposure to platform engineering, automation tools, collaborative development, and enterprise-level software practices.

**Tool used (Development tools - H/w, S/w) :** TypeScript, Python, Playwright, Gherkin, Docker Compose, Git, GitHub, JIRA, Backstage, VS Code, IntelliJ, Pycharm

**Objectives of the project :** Boost Developer Productivity, Promote Standardization and Best Practices, Support Cross-Language Ecosystems, Foster Agile Collaboration, Drive Platform Innovation

**Major Learning Outcomes :** Learned TypeScript and Python for automation, gained hands-on experience with Playwright and Docker, practiced Agile methodologies and CI/CD, contributed to Backstage platform engineering, improved collaboration and opportunity-solving skills.

**Details of Papers/patents :** No papers or patents were published as part of this project.

**Brief Description of working environment, expectations from the company :** The working environment at Capital One's Bangalore office was collaborative, innovative, and fast-paced. As part of the DataLabs India team, I was immersed in a culture that emphasized continuous learning, experimentation, and high engineering standards. The company promoted a strong Agile work ethic with daily stand-ups, sprint planning, and retrospectives, ensuring transparency and iterative progress. Team interactions were frequent and constructive, with a focus on mentorship and peer learning. I had regular guidance from my mentor and access to team resources, which helped in skill development and project execution.

Capital One maintained a developer-friendly environment by leveraging modern tools and practices. The use of platforms like GitHub, Docker, and JIRA streamlined development and collaboration, while an emphasis on test automation and platform engineering kept the work intellectually engaging and impactful.

The expectations from the company were clear and goal-oriented: contribute meaningfully to internal projects, uphold code quality and documentation standards, collaborate effectively within the team, and adapt quickly to new tools and systems. I was expected to take ownership of my assigned modules, actively participate in Agile rituals, and ensure that deliverables aligned with organizational standards.

Overall, the internship provided a professional yet supportive atmosphere, offering real-world exposure to enterprise-level software development and platform automation.

**Academic courses relevant to the project :** Object-Oriented Programming, Software Engineering, Data Structures and Algorithms, Web Technologies, Operating Systems, Computer Networks, Database Systems, Principles of Programming Languages, Compiler Design.

## **PS-II STATION: CARRIER TECHNOLOGIES INDIA LIMITED, HYDERABAD**

**FACULTY NAME: RAKESHA CHANDRA DASH.**

**STUDENT NAME: SHILPEE CHETAN MADHANI (2021A8PS0821G)**

Student Write-up

### **PS-II Project Title: Migration Automation**

**Short Summary of work done during PS-II :** Developed ETL pipeline using C#, .NET and SSMS to shift project data from one project management tool to another. Identified anomalies and different kinds of mappings done between different work items/artifacts in the tool. Found out work arounds to replicate same kind of mapping in new project management tool. Implemented considerable code changes to accommodate mapping. Validated migration using advanced Excel tools. Implemented UI automation on project management tool. Migrated 20+ enterprise projects and 10,00,000+ work items. Did a lot of API testing in this process, research, and read many documentations to understand the project management tools involved in the project.

**Tool used (Development tools - H/w, S/w) :** C# , .NET, SSMS, Postman, Rest API, Selenium, Python, Playwright, Atlassian Jira, MySQL, GraphQL, Xray, Excel

**Objectives of the project :** Developing ETL pipeline to migrate company data from one project management tool to another, validation of entire process

**Major Learning Outcomes :** Software development, SDLC, agile methodology, Atlassian Jira, UI automation, rest API, Xray, selenium, Playwright, C#, SQL, python, Github, communication skills, team building skills, presentation skills, ETL pipeline

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Good working environment, mentors are helpful, equipment, access and tools provided are just like what employees get, we were included in important projects. Managers are also helpful, HR is supportive, collaborative and helpful employees and work environment, all interns were given meaningful projects, not just for the sake of it. No interference from HR, daily scrum meetings held in the team, interns are held accountable for the work they do. Interns are included in all important meetings, taken to team lunches and included in participation in team and company activities.

**Academic courses relevant to the project :** DSA, OOP, OS, DBMS

**PS-II STATION: CARRIER TECHNOLOGIES INDIA LIMITED, HYDERABAD**

**FACULTY NAME: RAKESHA CHANDRA DASH.**

**STUDENT NAME: RACHANA SRI CHINTALAPATI (2021AAPS0645H)**

Student Write-up

**PS-II Project Title:** Embedded Software Development for Relaxed and balancer Controller

**Short Summary of work done during PS-II :** Enhancements were made to a Logging Library for relaxed and balancer middleware, improving core functions, adding new capabilities, and refining existing code to ensure efficient log management. Additionally, optimizations were applied to the build infrastructure using CMake and Conan for C/C++ projects, streamlining dependency management, simplifying conflict resolution, and enhancing package creation for diverse development environments. Furthermore, APIs were developed for the relaxed and balancer platform, enabling seamless system communication, real-time monitoring, automated firmware updates, and secure user settings management. By leveraging the C++ REST SDK, scalable, asynchronous client-server interactions were implemented and validated through Postman testing to ensure functionality and reliability. These efforts contributed to software design improvements, code optimization, and system integration, enhancing key system components.

**Tool used (Development tools - H/w, S/w) :** Linux, CMake, Conan, JFrog, C, C++, Postman

**Objectives of the project :** Develop embedded software for relaxed and balanced der firmware and middleware

**Major Learning Outcomes :** Industry requirements and tools in embedded software development, design thinking, code deployment, software development principles and best practices

**Details of Papers/patents : --**

**Brief Description of working environment, expectations from the company :** Relaxed, supportive environment, helpful and friendly team, projects usually involve creating proof of concepts for new tech or methodologies for current or future implementation in projects

**Academic courses relevant to the project :** FDSA, OOPS

**PS-II STATION: CARRIER TECHNOLOGIES INDIA LIMITED, HYDERABAD**

**FACULTY NAME: RAKESHA CHANDRA DASH.**

**STUDENT NAME: VADDE AVINASH REDDY (2021AAPS2933G)**

Student Write-up

**PS-II Project Title:** Smoke Test Automation

**Short Summary of work done during PS-II :** Automated the firmware testing workflow using Python, which streamlined the entire process and eliminated the need for manual intervention. Reduced testing time by 85 percent, significantly increasing efficiency and allowing for faster deployment of updates.

**Tool used (Development tools - H/w, S/w) :** PyCharm, Azure DevOps, Proprietary Control Board

**Objectives of the project :** Automate the Test performed on the Embedded Software Build

**Major Learning Outcomes :** Test Automation

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Very flexible working environment. We were expected to come to the office every day and complete the project with regular updates being taken by the manager.

**Academic courses relevant to the project :** Yes



**PS-II STATION: CATERPILLAR INDIA PVT.LTD., , CHENNAI**

**FACULTY NAME: GLYNN JOHN.**

**STUDENT NAME: KELLI HARITHA LAVANYA (2023H1060119G)**

Student Write-up

**PS-II Project Title:** Cooling flow rate in a clutch , brake and calculation sheet of bearing reaction forces

**Short Summary of work done during PS-II :** Worked on clutches and brakes of different Caterpillar vehicles to find the flow rate of oil required to cool down them after engaging brake or clutch so that it can improve life of clutch and brake. Also worked on gears and bearing forces, reactions, moments, stresses and also worked on topology optimization of solid c and I section gears and also studied about all power losses happening in bearings gears clutches

**Tool used (Development tools - H/w, S/w) :** Excel, Creo, Company proprietary software

**Objectives of the project :** Find flow rate required for brakes and clutches to optimize the life and also preparing calculation sheet of gear and bearing reaction forces stresses, bending moments to avoid the software usage and also finding the topology optimization of solid gear v/s c- gear

**Major Learning Outcomes :** Thermal related aspects and rectification of aspects in clutches and brakes by finding oil flow rate, gears and bearing related forces and stresses, professional etiquette, professional behavior

**Details of Papers/patents :** Studied many SAE papers and journals related to cooling flow rate of war clutch , multi disc wet brakes, C,I and solid gear topology and forces and stressed resolution of gears and bearings for different mountings

**Brief Description of working environment, expectations from the company :** Professional environment , theoretical exposure and practical application of concepts, Introduction to company and departments, working in real time projects, contributing to team work, professional communication and teamwork, opportunity solving skills.

**Academic courses relevant to the project :** Heat transfer, thermal engineering, automobile engineering, fluid mechanics

**PS-II STATION: CEG LIMITED, JAIPUR**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA.**

**STUDENT NAME: ROHIT CHOUDHARY (2023H1430044P)**

Student Write-up

### **PS-II Project Title: MODELING AND ANALYSIS OF GIRDERS**

**Short Summary of work done during PS-II :** During my Practice School-II (PS-II) internship at Consulting Engineers Group Ltd., Jaipur, I was involved in the modeling and analysis of bridge girders, focusing on both prestressed concrete (PSC) and composite steel superstructures for metro and highway projects. My responsibilities included extracting bridge geometry using AutoCAD, developing structural models in STAAD Pro, and performing detailed analysis under various load combinations such as dead load, superimposed dead load, live load, and temperature effects. I conducted cable profiling and calculated prestress losses for PSC girders, ensuring compliance with relevant IRC codes. Additionally, I automated sectional property calculations and design validations using Excel to enhance efficiency and accuracy. I also participated in the simulation and analysis of live load testing, validating that the bridge structures met serviceability and ultimate limit state requirements. Through this experience, I gained practical proficiency in industry-standard software, deepened my understanding of bridge design codes, and developed essential professional skills such as teamwork, technical reporting, and opportunity-solving.

Related What are the main structural analysis techniques I applied during PS-II How did my civil engineering skills evolve through the PS-II work In what ways did I optimize steel girder designs in this phase How was modeling software used to enhance bridge design accuracy What practical challenges did I overcome that reflect industry standards.

**Tool used (Development tools - H/w, S/w) :** Staad Pro, MS Excel, AutoCAD

**Objectives of the project :** To design and verify the structural adequacy of Pre-Stressed Concrete (PSC) and steel girder superstructures for metro and highway bridge projects. To develop accurate structural models using STAAD Pro and AutoCAD. To perform detailed analysis of bridge girders under various load combinations. To carry out cable profiling and prestress loss calculations for PSC girders. To automate sectional property calculations and result validation using Excel. To simulate and analyze live load testing of bridges. To ensure compliance with serviceability and ultimate limit states. To gain hands-on experience with industry-standard tools and deepen understanding of theoretical concepts through practical application.

**Major Learning Outcomes :**

1. Practical application of bridge design codes (IRC 6, IRC 112, etc.)
2. Hands-on experience with STAAD Pro and AutoCAD for structural modeling and analysis
3. Understanding of PSC and steel girder bridge design
4. Skill in cable profiling and prestress

**Details of Papers/patents :** Comparative Study of Prestressed Concrete Girder and Steel Plate Girder, High-Strength Concrete Applications to Prestressed Bridge Girders, Reliability-Based

## Shear Rating of Prestressed Concrete Bridge Girders, Analysis and Design of Composite Steel Bridge

**Brief Description of working environment, expectations from the company :** During my PS-II internship at Consulting Engineers Group Ltd., Jaipur, I experienced a professional, collaborative, and learning-oriented working environment. The office was equipped with up-to-date engineering workstations and essential software tools like STAAD Pro, AutoCAD, and Excel, which facilitated efficient project work. Team members, including senior engineers, were approachable and supportive, promoting open communication and teamwork. Regular project meetings and discussions provided valuable exposure to real-world bridge engineering challenges and solutions.

**Academic courses relevant to the project :** Design of Prestressed Concrete Structures & Bridges Covers the design, analysis, and detailing of prestressed concrete girders and slab bridges, including pre-tensioned and post-tensioned systems, prestress losses, and application of IRC codes.

**PS-II STATION: CEG, MUMBAI**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA.**

**STUDENT NAME: YUSUF PARVEZ SHAIKH (2023H1430032P)**

Student Write-up

**PS-II Project Title:** 1) Analysis of PSC Bridge . 2) Site Appreciation and report preparation of NMRDA Nashik Ring Road . 3) Design and detail of pedestrian staircases ( Railways).

**Short Summary of work done during PS-II :** During my internship at Consulting Engineers Group (CEG), I gained practical exposure to various aspects of infrastructure project planning and execution. I was involved in reviewing technical drawings, assisting in quantity estimation, and understanding project specifications related to highways, bridges, and urban infrastructure. I learned to interpret design standards and codes while working alongside experienced engineers on real-time projects. My responsibilities included assisting in site inspections, preparing documentation, and supporting quality control processes. I also observed how project management tools and software (such as AutoCAD and MS Excel) are used in daily operations. The internship enhanced my understanding of construction practices, project workflows, and coordination between design and execution teams. Additionally, I participated in team discussions and technical meetings, which helped improve my communication and opportunity-solving skills. This hands-on experience gave me a clearer perspective on the professional role of civil engineers in large-scale infrastructure development, reinforcing my technical foundation and professional growth.

**Tool used (Development tools - H/w, S/w) :** STAAD PRO , ADSEC , MIDAS , Google earth , GPS Camera.

**Objectives of the project :** 1) To Analyze single span psc box girder bridge .2) How to perform site appreciation . 3) How to Design and detail pedestrian staircase ( Railways )

**Major Learning Outcomes :** 1) Understood how To Analyze single span psc box girder bridge , How to perform site appreciation , How to Design and detail pedestrian staircase ( Railways ).

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment at CEG is typically professional, collaborative, and dynamic, emphasizing technical excellence and innovation. Engineers operate in multidisciplinary teams where clear communication, mutual respect, and teamwork are essential for project success. The workplace encourages continuous learning, opportunity-solving, and proactive engagement with both clients and team members.

Expectations from team members include a strong commitment to quality and integrity in all deliverables, adherence to project deadlines, and compliance with industry standards and safety regulations. Engineers are expected to apply analytical thinking, creativity, and sound engineering principles to develop efficient, cost-effective, and sustainable solutions tailored to client needs.

Effective time management, attention to detail, and the ability to adapt to evolving project scopes and technologies are highly valued. Professionals are also expected to maintain open lines of communication with clients, understand their goals, and provide expert guidance throughout all project phases.

In addition, the company fosters a culture of accountability, where each individual takes ownership of their work while contributing to the broader success of the organization. Continuous professional development and staying updated with the latest engineering trends and tools are encouraged, supporting both personal growth and organizational innovation.

**Academic courses relevant to the project :** 1) Bridge Engineering 2) Prestress Concrete structures 3) RCC structures

**PS-II STATION: CIRT- CENTRAL INSTITUTE OF ROAD TRANSPORT, PUNE**

**FACULTY NAME: SAMATA SATISH MUJUMDAR.**

**STUDENT NAME: NAINAR SURAJ MANIVANNAN (2020B2A41993G)**

Student Write-up

**PS-II Project Title:** Research on HCNG blends, Simulation work for FCEV

**Short Summary of work done during PS-II :** Research paper on HCNG blends, it's performance and efficiency. Research paper on Hydrogen material compatibility (review), Simulation of a proton exchange membrane fuel cell on simulink simscape electrical

**Tool used (Development tools - H/w, S/w) :** Simulink

**Objectives of the project :** To write a research paper for IJTM, simulate FCEV to optimize fuel cells for further projects

**Major Learning Outcomes :** Matlab simulink, research paper writing

**Details of Papers/patents :** ICGTME- ADVANCING URBAN TRANSPORTATION WITH HYDROGEN-COMPRESSED NATURAL GAS BLENDS: ENVIRONMENTAL AND ECONOMIC INSIGHTS

IJTM- Study of Hydrogen Embrittlement Process Associated with the Utilization of Hydrogen in

**Brief Description of working environment, expectations from the company :** Very flexible working environment and adaptive expectations, learning is prioritized over output.

**Academic courses relevant to the project :** TRW, Sustainable Chemistry, EMM,CAD

**PS-II STATION: CIRT- CENTRAL INSTITUTE OF ROAD TRANSPORT, PUNE**

**FACULTY NAME: SAMATA SATISH MUJUMDAR.**

**STUDENT NAME: GANTAVYA SHARMA (2021A4PS3100H)**

Student Write-up

**PS-II Project Title:** Design of Test apparatus for AIS-047 and AIS-074/075

**Short Summary of work done during PS-II :** During PS-II, we designed test apparatuses in accordance with AIS 047 standards. Additionally, we developed control logics for AIS-074 and AIS-075, and successfully integrated their respective ladder diagrams to enable operation on a single machine platform.

**Tool used (Development tools - H/w, S/w) :** Creo CAD, Delta PLC WPLSOFT

**Objectives of the project :** Design test apparatus for AIS-047 and make control logic for AIS-074/075

**Major Learning Outcomes :** PLC programming

**Details of Papers/patents :** NIL

**Brief Description of working environment, expectations from the company :** The working environment at CIRT Pune was structured yet independent. Although we were not physically working on-site, we were clearly assigned project objectives and technical tasks from the outset. The team provided necessary documentation and occasional guidance, trusting us to manage our responsibilities and timelines effectively.

There was a strong emphasis on outcomes, with mentors showing interest in our progress and final results. This level of autonomy allowed us to apply our technical knowledge practically while also developing opportunity-solving and time management skills. When required, communication lines were open, and the feedback we received helped align our work with expectations.

**Academic courses relevant to the project :** Mechatronics

**PS-II STATION: CISPL-COMPLETE INSTRUMENTATION SOLUTIONS PVT.LTD., , PAVEMENT ENGINEERING, GURGAON**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA.**

**STUDENT NAME: CHARANKAR ATHARVA SUDHIR (2023H1300045H)**

Student Write-up

**PS-II Project Title:** Practice School at CISPL Gurugram

**Short Summary of work done during PS-II :** Firstly I have explored various IRC codes which provides guidelines for designing and maintaining pavements, Then I have introduced instruments, Then I have used that instruments and Collected data, Then I have learned Data analysis of all the instruments using various software.

**Tool used (Development tools - H/w, S/w) :** IITPAVE, KGPBACK, AUTOLOTTER

**Objectives of the project :** Learn Instruments which are used in pavement field, From collecting data to analysis and final submission.

**Major Learning Outcomes :** I have got to know Various instruments used for pavement engineering,

I have explored various IRC codes.

**Details of Papers/patents : No**

**Brief Description of working environment, expectations from the company :** Working Environment is good , Expectations are focusing on more technical learning.

**Academic courses relevant to the project:** Road Asset management

**PS-II STATION: CLEARTAX, BENGALURU**

**FACULTY NAME: FEBIN A VAHAB.**

**STUDENT NAME: VISHNU PEDDINENI (2020B3AA0371H)**

Student Write-up

**PS-II Project Title:** Building a Personal Finance app

**Short Summary of work done during PS-II :** Primarily focused on building an as-yet unreleased personal finance app in the B2C division of the company, in a full-stack capacity. Worked on a wide variety of features, ranging from simple API integrations, to building multi-agent AI frameworks. The org is heavily AI-first, so I also gained extensive experience with AI coding tools such as Roo Code. Also worked on other products such as a UI revamp on BLACK (a mutual fund trading app), and a stock data repo.

**Tool used (Development tools - H/w, S/w) :** Python (FastAPI, Django), Java (Spring Boot, Dropwizard), JavaScript (Next.js), Other tools (such as RooCode, LlamaIndex)

**Objectives of the project :** To build a new personal finance app, showing users valuable insights on their finances, and empowering them to save and invest more.

**Major Learning Outcomes :** Wide range of tech-related learnings across projects and repos, hands-on experience with building a multi-agent framework, working with a small focused team on building a new product with velocity.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Working environment is good, with supportive team members and mentors. The company expects people to finish high-quality work on time, without micro-managing, or forcing working hours.

**Academic courses relevant to the project :** Various CS courses (such as OOP)

**PS-II STATION: CLOUDFILES TECHNOLOGIES INC- IT, BENGALURU**

**FACULTY NAME: SHREYAS SURESH RAO.**

**STUDENT NAME: VITTHAL BAJPAI (2020B1A12082G)**

Student Write-up

**PS-II Project Title:** Full Stack Development

**Short Summary of work done during PS-II :** Built products leveraging Nest.js, LWC, Redis concepts

**Tool used (Development tools - H/w, S/w) :** VS Code, Cursor

**Objectives of the project :** Engineer products and features using development technologies

**Major Learning Outcomes :** Exposure to various kinds of technologies used in full stack

**Details of Papers/patents :** No patents

**Brief Description of working environment, expectations from the company :** Great

**Academic courses relevant to the project :** OOP, CP, FODSA

**PS-II STATION: CLOUDFILES TECHNOLOGIES INC- IT, BENGALURU**

**FACULTY NAME: SHREYAS SURESH RAO.**

**STUDENT NAME: DELIWALA PREKSHA ASHISH (2023H1030050G)**

Student Write-up

**PS-II Project Title:** Website Development

**Short Summary of work done during PS-II :** During my PS-II internship, I worked on the development and enhancement of the company's official website. I was primarily involved in creating dynamic and responsive frontend components using Next.js and TypeScript. I implemented consistent design patterns using Tailwind CSS and integrated Payload CMS to streamline content updates. My work contributed to improving the user experience and making the website easier to maintain and scale.

**Tool used (Development tools - H/w, S/w) :** Cursor AI, Git and GitHub, Payload CMS, Figma

**Objectives of the project :** The main objective of the project was to redesign and develop the company's website using modern web technologies to improve performance, user experience, and content management.

**Major Learning Outcomes :** Gained hands-on experience with Next.js and TypeScript for building scalable, component-based web applications.

Learned to implement responsive and mobile-first designs using Tailwind CSS. Understood the integration and customization of headless CMS solution

**Details of Papers/patents : NA**



**Brief Description of working environment, expectations from the company :** The working environment overall was really collaborative and dynamic. All the team members were supportive. It was expected from me to fit in the fast-paced environment, learn and implement concepts quickly, and to deliver tasks on or before deadline. The working timings were pretty flexible, which helped me manage my time efficiently. Regular communication, code reviews, and feedback sessions played a key role in the project's progress.

**Academic courses relevant to the project :** Data Structures, Object Oriented Programming, Database Management.

**PS-II STATION: CME GROUP, BENGALURU**

**FACULTY NAME: ARINDAM ROY.**

**STUDENT NAME: SANAATAN R (2021A7PS2902H)**

Student Write-up

**PS-II Project Title:** Recommendation A.I for education pages, RAG model for LLM

**Short Summary of work done during PS-II :** Developed a RAG-based system integrating a company-specific Large Language Model (LLM) with a vector database. Built a natural language interface that parses user prompts and retrieves the most relevant schemas. Collected user interaction data from educational platform. Engineered features from user profiles, course metadata, and engagement history. Implemented collaborative filtering and content-based recommendation models.

**Tool used (Development tools - H/w, S/w) :** BigQuery, SQL, Python, Jupyter Notebook instance, LightFM, BigFrames package

**Objectives of the project :** To develop a Retrieval Augmented Generation(RAG) Model for the company's LLM to retrieve relevant schemas based on natural language prompt. To develop a recommended A.I model to recommend courses to users in education websites

**Major Learning Outcomes :** Gained hands-on experience with advanced recommender systems, including LightFM and Google's Recommendation AI. Enhanced skills in exploratory data analysis, data-driven modeling, and handling real-world web analytics data. Developed expertise in retrieval

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** I was part of a 10+ member AI/ML team composed of highly experienced professionals. This environment provided valuable mentorship and exposure to real-world applications of machine learning. Collaborated

with global teams based in the US and London, improving my communication and coordination skills.

**Academic courses relevant to the project :** Machine Learning, Natural Language processing, Generative AI, Deep Learning, Information Retrieval, Data Mining

**PS-II STATION: COGNINE TECHNOLOGIES PVT. LTD., HYDERABAD**

**FACULTY NAME: PRADHEEP KUMAR K.**

**STUDENT NAME: SHRINIVAS CHOUDHARY (2023H1030088P)**

Student Write-up

**PS-II Project Title:** Knowledge Centre

**Short Summary of work done during PS-II :** In this project I contributed to developing a centralized application for sharing knowledge and learning throughout the organization. The sharing of knowledge is facilitated through creation of posts and publishing them so they are visible to others. The post after creation is not directly published, it is in staged mode. Then the author has to assign a reviewer and send the post for review. Then the reviewer reviews the post and can suggest changes or approve or reject the post. We have added email notifications during this whole process to keep the users informed. Only after the post is approved it is visible to others. In this way the sharing of information is facilitated in a controlled manner across the organization.

**Tool used (Development tools - H/w, S/w) :** .Net Framework, React library

**Objectives of the project :** The primary objective of the Knowledge Centre is to provide a platform for managing knowledge-based content that ensures: 1. Quality assurance through content validation 2. Controlled access via role-based visibility 3. Seamless update and versioning of published materials 4. Integration of supporting resources such as attachments and external references

**Major Learning Outcomes :** Backend Development using .Net Framework, Frontend Development using React, Agile methodology of Software Development, Devops using Azure

Details of Papers/patents : -

**Brief Description of working environment, expectations from the company :** The working environment was really good. The company expected us to follow positive and professional office timings (10-6) but were pretty lenient if we were late sometimes. We got paid leaves and work from home when necessary. The company expected 6hrs of work daily from us at least but it was not strictly enforced.

**Academic courses relevant to the project :** Cloud Computing, Advanced Operating Systems, Advanced Computer Networks

**PS-II STATION:** COHESITY STORAGE SOLUTIONS INDIA PVT. LTD., BENGALURU/PUNE

**FACULTY NAME:** JYOTSANA GROVER

**STUDENT NAME:** SURYANSH CHANDOLA (2021A7PS0058H)

Student Write-up

**PS-II Project Title:** DataHighway

**Short Summary of work done during PS-II :** Built Flink applications for creating an ETL pipeline which validates and filters data and sends the processed data to databases. Handled the writing of a Rest Proxy to direct incoming traffic to specific Kafka Topic partitions based on incoming data specifics.

**Tool used (Development tools - H/w, S/w) :** Kubernetes, Docker, Git

**Objectives of the project :** Create an ETL pipeline for processing data and writing to databases.

**Major Learning Outcomes :** Apache Flink, Apache Kafka, Confluent Schema Registry, Docker, Kubernetes, Git

**Details of Papers/patents :** N.A

**Brief Description of working environment, expectations from the company :** Relaxed working environment with a lot of freedom given to employees. Good perks and benefits offered to employees.

**Academic courses relevant to the project :** DBMS, OOPS, DSA, Computer Networks

**PS-II STATION:** COHESITY STORAGE SOLUTIONS INDIA PVT. LTD., BENGALURU/PUNE

**FACULTY NAME:** JYOTSANA GROVER

**STUDENT NAME:** SEHAJPREET SINGH CHAWLA (2021A7PS2048G)

Student Write-up

**PS-II Project Title:** Helios reporting

**Short Summary of work done during PS-II :** Worked on optimizing Helios reporting, which is Cohesity's platform for reports related to customers data backups.

**Tool used (Development tools - H/w, S/w) :** Go, Kubernetes, Python, Postgres, Grafana, Prometheus

**Objectives of the project :** Work on optimizing and adding new features to Helios reporting

**Major Learning Outcomes :** Go, Kubernetes, Python, Postgres, Grafana, Prometheus

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Working environment was great. We worked closely with the team and were included in the regular standups. Everyone was really helpful and supportive. The tasks were broken down into small tickets and the team assigned them to us and expected to complete them in the sprint.

**Academic courses relevant to the project :** DSA, OOP, DBMS, AI

**PS-II STATION: COHESITY STORAGE SOLUTIONS INDIA PVT. LTD., BENGALURU/PUNE**

**FACULTY NAME: JYOTSANA GROVER**

**STUDENT NAME: MAITREYA MANOHAR (2021A7PS2663H)**

Student Write-up

**PS-II Project Title: ETL Data Pipeline**

**Short Summary of work done during PS-II :** Our project involved extracting the data from the data plane and moving it to the control plane for serving reports which the UI team would query. It involved migrating the code from go to Java to use a new technology called Apache Flink. The data flows from the data plane to the control plane through these flink jobs. We had developed the flink jobs from scratch along with Schema registry and Kafka rest proxy. We were involved in building the pipeline end to end along with deploying it to AWS.

**Tool used (Development tools - H/w, S/w) :** Apache Flink, Apache Hudi, Protobuf, Java, Schema Registry, Kafka Rest proxy, Apache Kafka, AWS S3, AWS Managed Flink Applications, Prometheus, Grafana, Kubernetes

**Objectives of the project :** Move legacy code to use Apache Flink and bridge the gap between the data plane and the UI

**Major Learning Outcomes :** My **Major Learning Outcomes** in terms of technical skills were writing production quality code, project management using JIRA, Apache Flink, Apache Hudi, Java, Protobuf, AWS, Prometheus and Grafana. I was also able to learn a few soft skills like teamwork.

Details of Papers/patents : N/A

**Brief Description of working environment, expectations from the company :** Working environment was good, the office facilities were good and the teammates were friendly. Most of the teammates were working remotely, however we used to come to office since some of our teammates used to come, and it was better to work from office. Overall, the working environment was very good.

**Academic courses relevant to the project :** DSA, OOPS, DBMS, OS

**PS-II STATION: COLLINS AEROSPACE, BENGALURU**

**FACULTY NAME: SRINIVAS KOTA .**

**STUDENT NAME: VISHNU R NAIR (2023H1420136P)**

Student Write-up

**PS-II Project Title:** transition Project for new site

**Short Summary of work done during PS-II :** The transition projects deal with three different sets of projects under different domains. All three projects are associated with the development of the company's new site and are under the scope of the Department of Industrialization Engineering. Project, one comes under the domain of HVAC, where the objective is to design and develop an LEV table for the joining area. The second project involves installing an auto-cutter at the new site for capacity enhancement. The third project involves installing a new set of sewing machines in the subassembly area for capacity enhancement. All three projects aim to ensure the machines are ready for production within the timeline for a smooth and steady operational flow.

**Tool used (Development tools - H/w, S/w) : NA**

**Objectives of the project :** To make sure to design a proper LEV system for the company

**Major Learning Outcomes :** More in depth knowledge on LEV systems and industrial engineering concepts

Details of Papers/patents : NA

**Brief Description of working environment, expectations from the company :** Working environment is very good.

**Academic courses relevant to the project :** Operations management

**PS-II STATION: COMMVAULT, BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.**

**STUDENT NAME: VARUN GOPAL (2020B3A71785G)**

Student Write-up

**PS-II Project Title:** Automation

**Short Summary of work done during PS-II :** Automating testcases and working on Amazon RDS

**Tool used (Development tools - H/w, S/w) :** python, git , aws , vs code

**Objectives of the project :** Automating testcases

**Major Learning Outcomes :** python, git

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** very good working culture and teams, very good manager and good work.

**Academic courses relevant to the project :** DBMS

**PS-II STATION: COMMVAULT, BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.**

**STUDENT NAME: ADITI JAIN (2021A7PS1760G)**

Student Write-up

**PS-II Project Title:** DB2 HADR Automation test cases and Backup and Restore in Milvus vector database

**Short Summary of work done during PS-II :** DB2 HADR Instance Failover and Takeover Automation: Implementing and testing automated procedures to ensure seamless transition between primary and standby databases during planned or unplanned disruptions. Load Copy Restore Validation in HADR Environments: Evaluating the integrity of data loaded using the COPY YES option and the corresponding restoration on the standby node. Encryption Key Rotation in Encrypted DB2 Databases: Testing secure key rotation practices and their impact on backup and restore functionality across multiple encryption cycles. Vector Databases and the Milvus Framework: Studying the architecture, indexing strategies, and similarity search mechanisms in

Milvus, a distributed, open-source vector database, along with practical demonstrations of data ingestion, indexing, backup, and restoration.

**Tool used (Development tools - H/w, S/w) :** Commvault Platform, IBM DB2 Database (with HADR Configuration), Linux Command Line (Shell/Bash), Milvus Vector Database, Python & PyMilvus SDK, Docker

**Objectives of the project :** Automation testcases for: DB2 HADR Instance Failover and Takeover, DB2 HADR Load Copy Restore, DB2 Encrypted Database Encryption Key Rotation and Backup and Restore in Milvus vector database

**Major Learning Outcomes :** In-depth Understanding of Enterprise Backup and Recovery Solutions, Hands-on Experience with DB2 HADR Configurations, Validation of Advanced DB2 Functionalities, Practical Knowledge of Encryption and Key Management, Exploration of Vector Database Technology.

Details of Papers/patents : None

**Brief Description of working environment, expectations from the company :** Commvault provided a collaborative and learning-focused environment, encouraging hands-on work with real-world systems. Interns were expected to be proactive, detail-oriented, and deliver reliable, well-documented technical solutions. Guidance was available, but independent opportunity- solving and initiative were highly valued.

**Academic courses relevant to the project:** Database Management Systems

**PS-II STATION: COMMVAULT, BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.**

**STUDENT NAME: UBAID NOOR MOHAMMED DALVI (2021A7PS2729G)**

Student Write-up

**PS-II Project Title:** Software Development

**Short Summary of work done during PS-II :** Automated Cross Machine PDB clone Test case for Oracle Database, Helped with Dev Integration of SAP Oracle DB with the Credential Manager Project, Resolved Oracle Related Customer Aspects, Created a Rest API for Oracle Database

**Tool used (Development tools - H/w, S/w) :** Commvault, Python, SQL, Oracle, SAP Oracle, SAP MaxDB , C#, .NET Framework

**Objectives of the project :** Automating DB Test cases, Dev Integration of SAP Oracle DB with Credential Manager Project , Creating Rest API for Oracle DB and Helping to Resolve Customer Aspects

**Major Learning Outcomes :** Automation using Python, SQL, Oracle, SAP Oracle, SAP MaxDB, Rest API, C#, .NET Framework  
Details of Papers/patents : NA

**Brief Description of working environment, expectations from the company :** The working Environment is Neat, Peaceful and filled with Helpful people who guide you through your Tasks. Interaction with colleagues helps you to understand the opportunities better and learn collectively.

**Academic courses relevant to the project:** OS, CN, DBMS, DSTN, OOPs

**PS-II STATION: COMMVAULT, BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.**

**STUDENT NAME: DHRUV BIMAL SHAH (2021AAPS2860G)**

Student Write-up

PS-II Project Title: Arlie

**Short Summary of work done during PS-II :** Developed an internal tool end to end. Significantly improved Chatbot using agentic ai coupled with reasoning models.

**Tool used (Development tools - H/w, S/w) :** No-SQL, GPT-models, Gemini-models. Python, fastapi, React,typescript, html,markdown,css

**Objectives of the project :** To develop and enhance ai-based tools of Commvault

**Major Learning Outcomes :** Software Engineering Processes and writing production grade code. AI Agents

**Details of Papers/patents :** No papers/patents published

**Brief Description of working environment, expectations from the company :** Amazing work life balance and great work culture. Engaging work given. No complaints



**Academic courses relevant to the project:** LLMs(Reading course), Deep Learning, Machine Learning

**PS-II STATION:** CONFLUENT INDIA PVT LTD., BENGALURU

**FACULTY NAME:** PRAVIN YASHWANT PAWAR.

**STUDENT NAME:** ARUNACHALA AMUDA MURUGAN (2021A7PS0205H)

Student Write-up

**PS-II Project Title:** Integration of Max eCKU for tenant striping and balancing

**Short Summary of work done during PS-II :** The first part of my work involved exploration of already existing pipelines from the MDB. Then I had to build a PoC of a pipeline to be able to get the data we need, and after testing it, flesh it out with persistence storage and APIs related to it. After this I had to write integration tests and test it on the cloud E2E. Finally, I began exploration on mispacking and how we can use this newly available metadata in the bin packing algorithm for better and more predictable striping.

**Tool used (Development tools - H/w, S/w) :** Java, Scala, Bazel, Docker, Kubernetes, Kafka, Opensearch, Datadog

**Objectives of the project :** Creating a pipeline to ingest existing and new metadata from the mothership to a place our team can consume it for better tenant striping and balancing.

**Major Learning Outcomes :** 1. A complete java and scala refresher and how its used in companies  
2. Understanding the cycle on software development, from exploration, implementation, testing and release

3. Understanding the non-programming side of software engineering in practice.

Details of Papers/patents : None

**Brief Description of working environment, expectations from the company :** The environment is extremely friendly and understanding, however since it's a fully remote company it is a very asynchronous environment and you will be expected to learn a lot on your own, since it will take time for some people to respond. Working hours are flexible.

**Academic courses relevant to the project:** Software Engineering, OOPs

**PS-II STATION:** CRITICAL PATH TECHNOLOGIES PVT. LTD. (ALARYSE) - NON-TECH, GURGAON

**FACULTY NAME:** SIDHARTH MISHRA.

**STUDENT NAME:** UDBHAV CHOUDHARY. (2020B1AB1905P)

Student Write-up

**PS-II Project Title:** Product Management at a Fintech Startup

**Short Summary of work done during PS-II :** The task was to understand the company's products, develop dashboards for usage and performance analysis for that product and develop growth and communications plan for the product.

**Tool used (Development tools - H/w, S/w) :** Metabase, Amplitude, Mixpanel, Google sheets, SQL

**Objectives of the project :** Gain an understanding of the company's products, suggest improvements, and grow them

**Major Learning Outcomes :** Data analysis

Product improvement

Growth plan creation

Details of Papers/patents : NA

**Brief Description of working environment, expectations from the company :** It's a startup so work culture is dynamic and growth-oriented and high ownership is required

**Academic courses relevant to the project:** Yes

**PS-II STATION: CRITICAL PATH TECHNOLOGIES PVT. LTD. ("SALARYSE) - TECH, GURGAON**

**FACULTY NAME:** ANKUR PACHAURI

**STUDENT NAME:** SANCHIT KALRA (2020B4A32298H)

Student Write-up

**PS-II Project Title:** Java and Spring Boot based Backend Development

**Short Summary of work done during PS-II :** Worked on various backend development tasks using java, spring boot, and amazon aws as discussed during weekly standups. Learnt about task planning and delivery in a corporate setting. Also got exposure to various LLMs and Agentic AI workflows.

**Tool used (Development tools - H/w, S/w) :** Java, Spring Boot, Amazon AWS, IntelliJ, LangGraph

**Objectives of the project :** Objectives were based on weekly standups

Major Learning Outcomes :

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Working environment was very good. Colleagues are very supportive and understanding. There is expectation to go above and beyond your usual work and this helps a lot with personal and professional growth

**Academic courses relevant to the project:** OOP, OS, DBMS

**PS-II STATION: CRITICAL PATH TECHNOLOGIES PVT. LTD., (ALARYSE) - TECH, GURGAON**

**FACULTY NAME:** ANKUR PACHAURI

**STUDENT NAME:** VIVEK SHARMA (2021AAPS2317H)

Student Write-up

**PS-II Project Title:** Backend API Development: Enhancing SalarySe's Ecosystem

**Short Summary of work done during PS-II :** During my internship at Critical Path Technologies Pvt. Ltd. ("SalarySe"), I was involved in the development and optimization of backend APIs that power the company's lending ecosystem. My primary contributions included: Designing and implementing the Loan Foreclosure feature Creating webhooks and APIs to integrate with NBFCs like Mirae and Zype, ensuring accurate status reconciliation Developing reusable, secure, and modular APIs for EMI repayments, bank detail retrieval, and user-specific workflows Migrating Retool dashboards to AppSmith, automating internal processes for better visibility Working with large financial datasets to optimize reconciliation logic and improve system efficiency Creating a unified disbursal framework adaptable to multiple NBFCs This experience helped me understand the complexity of financial systems, the importance of reliability in critical services, and the need for clean, maintainable code in a production-grade environment.

**Tool used (Development tools - H/w, S/w) :** IntelliJ Idea, Postman, Postico 2, Metabase, AppSmith, GitHub

**Objectives of the project :** The objective of the project was to design, implement, and optimize backend APIs to support and enhance the financial services ecosystem of SalarySe. The focus was on ensuring seamless integration with multiple NBFCs, facilitating scalable workflows, and improving platform reliability for critical operations such as loan disbursal, EMI repayments, and dashboard automation.

**Major Learning Outcomes :** 1. Gained in-depth knowledge of RESTful API development and real-world integration with external NBFC systems.

2. Understood end-to-end backend architecture in a fintech platform.

3. Learnt to design scalable systems and modular workflows.

#### 4. Improved ski

Details of Papers/patents : NA

**Brief Description of working environment, expectations from the company :** The working environment at SalarySe was dynamic and collaborative. I was encouraged to take ownership of critical backend modules from the very beginning. The engineering team, under the guidance of the CTO, maintained high coding standards and followed structured sprint-based workflows. Regular code reviews and sprint retrospectives ensured consistent learning.

The company expected a high degree of accountability, self-learning, and timely delivery. I had the opportunity to engage in discussions around system design and business logic. This not only enhanced my technical proficiency but also gave me exposure to product thinking and the impact of engineering decisions on customer experience. The work culture emphasized open communication, knowledge sharing, and continuous improvement.

**Academic courses relevant to the project:** Object-Oriented Programming Systems (OOPS), Database Management Systems (DBMS)

**PS-II STATION: CSIR - CENTRAL ROAD RESEARCH INSTITUTE (CRRI), NEW DELHI**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA.**

**STUDENT NAME: SOUVIK DAS (2023H1430035P)**

Student Write-up

**PS-II Project Title: Study of Natural Frequency of Bridges**

**Short Summary of work done during PS-II :** The dynamic response of bridges is influenced by various factors, including span length, boundary conditions, and structural stiffness. While numerous studies have focused on measuring or estimating the natural frequency of bridges, this study aims to develop a comprehensive database of natural frequency measurements for bridges with varying spans and structural types. This database will serve as a foundation for future research on the dynamic behavior of bridges. To achieve this, two uniaxial accelerometers (S-1 and S-2) were used to measure the natural frequency in a single direction, while a triaxial accelerometer (S-3) was employed for multi-directional frequency analysis. The signals from these accelerometers were recorded and analyzed using FFT Analyzer developed by OROS Noise & Vibration Software, which provided Time Domain data and performed Fast Fourier Transform (FFT) analysis. The placement of the accelerometers varied based on the girder type of the bridge, such as I-girder, box- type girder, and solid slab type. The study was conducted on various types of bridges, including Vehicular Underpasses (VUP), Pedestrian Underpasses (PUP), Minor Bridges, and Interchange Bridges, located along the Yamuna Expressway, a 165.5 km-long expressway connecting Greater Noida to Agra, Uttar Pradesh. Furthermore, a limited number of bridges were modelled using the software of CSi Bridge to validate numerical simulations against

experimental results. This validation enhances the understanding of bridge dynamics and contributes to the development of more accurate predictive models for future studies.

**Tool used (Development tools - H/w, S/w) :** FFT Analyzer & CSi Bridge

**Objectives of the project :** Objective is to measure & analyze natural frequency of 50 Structures using accelerometers and FFT analysis.

**Major Learning Outcomes :** The practical study of natural frequencies was conducted up to the final chainage of 165 km along the Yamuna Expressway. Based on the results obtained, it was observed that the natural frequency of the structures varies with changes in span length and the

**Details of Papers/patents :** 1. Abstract Highlights:

The study focuses on measuring and analyzing the natural frequencies of bridges along the Yamuna Expressway (165.5 km from Greater Noida to Agra).

a) It builds a database of frequency data for bridges with different spans and stru

**Brief Description of working environment, expectations from the company :** 1. Working Environment at CSIR-CRRI, New Delhi

The CSIR-Central Road Research Institute (CRRI), located in New Delhi, is a premier national laboratory under the Council of Scientific and Industrial Research (CSIR). It is dedicated to research and development in road and bridge engineering, traffic and transportation planning, and related infrastructure sectors. The working environment at CSIR-CRRI is both professional and research-intensive, with a strong emphasis on innovation, collaboration, and practical learning.

Key Highlights of the Work Environment:

- a) Research-Oriented Culture: The institute promotes a culture of continuous learning through structured research programs, real-world case studies, and dynamic experimental setups.
- b) Supportive Mentorship: Interns and research scholars are guided by senior scientists and technical officers who actively mentor and encourage analytical thinking and innovation.
- c) Field Exposure: Students are regularly involved in site visits, hands-on testing, and live data acquisition, ensuring practical understanding alongside theoretical knowledge.
- d) Advanced Software & Equipment: Tools like FFT Analyzer developed by OROS NVGate (for vibration analysis), CSi Bridge (for numerical modelling), and other simulation software are used to foster tech-enabled research.
- e) Collaborative Environment: Inter-departmental meetings and collaborative projects provide a platform to exchange ideas and insights with experts in multiple fields like structural dynamics, materials, and geotechnical engineering.
- f) Lab Facilities: Well-equipped laboratories and a structured experimental framework make it an ideal environment for technical analysis and prototype testing.

2. Expectations from the Organization

As an M.E. Structural Engineering student undergoing Practice School II training at CSIR-CRRI, I had the following expectations from the organization:

- (i) Hands-on Learning: To gain exposure to practical field conditions, advanced instrumentation, and real-time data collection methods used in bridge engineering and structural health monitoring.
- (ii) Technical Skill Enhancement: To become proficient in using industrial-standard software tools like FFT Analyzer and CSi Bridge for data processing and numerical analysis.
- (iii) Mentorship and Guidance: To work under experienced scientists and engineers who can offer insight into real-world challenges in structural dynamics and bridge behavior.
- (iv) Research Contribution: To meaningfully contribute to an ongoing project and learn how to present experimental findings through analysis, reports, and data interpretation.
- (v) Professional Development: To understand workplace ethics, collaborative teamwork, technical documentation, and time management in a research setting.

**Academic courses relevant to the project:** The project titled "Study of Natural Frequency of Bridges" primarily deals with structural dynamics, vibration analysis, instrumentation, and software-based modeling of bridges.

**PS-II STATION: CSIR-NAL, BENGALURU**

**FACULTY NAME: SAMEER GUPTA.**

**STUDENT NAME: PAKANATI RITESH (2021A4PS3073H)**

Student Write-up

**PS-II Project Title:** STRESS ANALYSIS OF THE PRECOOLER (HEAT EXCHANGER) USING ANALYTICAL AND FINITE ELEMENT METHODS

**Short Summary of work done during PS-II :** Heat Exchanger is one of the crucial elements in the Environmental Control System (ECS) of a commercial aircraft, providing conditioned air at an optimum temperature and pressure for passenger comfort. The heat exchanger (Precooler) sustains high-pressure and high-temperature bleed air from the engine. Failure of the heat exchanger can result in catastrophic ECS failure and loss of bleed air. Understanding the mechanical stresses generated in the heat exchanger is essential to keep them within safe operational limits. In this internship work, Finite Element Analysis (FEA) of the precooler was carried out, supplemented by analytical models from literature. A comparison between numerical and analytical results is presented to validate the analysis.

**Tool used (Development tools - H/w, S/w) :** Ansys mechanical, Hypermesh, Catia, SolidWorks

**Objectives of the project :** To determine stress values and recommend design adjustments

**Major Learning Outcomes :** Finite Element Analysis, workings of a government laboratory

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The internship was undertaken at CSIR-National Aerospace Laboratories (NAL), Bengaluru, within the Environmental Systems Division. The working environment was research-driven, collaborative, and structured, providing interns with exposure to real-world aerospace challenges. Facilities were well- equipped with industry-standard tools like ANSYS® Workbench, and guidance was provided by experienced scientists and engineers. The company maintained high professional standards and expected interns to be proactive, self-disciplined, and technically competent. Emphasis was placed on understanding the theoretical foundation behind engineering opportunities and applying it effectively in simulations and analysis. Interns were encouraged to take initiative in opportunity-solving, communicate findings clearly, and validate their work through both analytical calculations and finite element methods. Deliverables included timely progress reports, accurate documentation of methods and results, and participation in discussions on design validation and safety considerations. The overall environment promoted learning, critical thinking, and attention to detail—key skills for success in the aerospace and mechanical engineering domains.

**Academic courses relevant to the project:** CAD, Mechanics of solid

**PS-II STATION: CSIR-NAL, BENGALURU**

**FACULTY NAME: SAMEER GUPTA.**

**STUDENT NAME: GORE ATHARVA SUHAS (2023H1060122G)**

Student Write-up

**PS-II Project Title:** Design optimization of composite VTOL UAV airframe structure for improved payload efficiency.

**Short Summary of work done during PS-II :** The project focused on the structural design optimization of a Vertical Takeoff and Landing (VTOL) Unmanned Aerial Vehicle (UAV) developed by CSIR–NAL, with the objective of achieving significant weight reduction and enhancing payload efficiency. The UAV’s airframe, primarily composed of composite materials such as Carbon Fiber Reinforced Polymer (CFRP), Glass Fiber Reinforced Polymer (GFRP), and polyurethane foam, was extensively analyzed and redesigned to improve its performance while maintaining structural integrity. A component-wise optimization approach was followed, targeting the wing, horizontal tail (HT), and fuselage. The methodology involved CAD remodeling, material and ply configuration optimization, and structural validation using Finite Element Analysis (FEA) with ANSYS Workbench and ANSYS ACP. Sandwich composite structures were introduced in ribs, spars, and select skin regions to maximize strength-to-weight ratio. Modal analysis was also performed to understand vibrational behavior under operational conditions. As a result, the project achieved a total airframe weight reduction of up to 60%, enabling better endurance and payload capability without compromising flight safety or aerodynamic performance. The design

also improved modularity, manufacturability, and adaptability for future UAV missions. This work demonstrates the effectiveness of integrating composite material knowledge with advanced simulation tools in real-world aerospace applications.

**Tool used (Development tools - H/w, S/w) :** S/w- CATIA V5, ANSYS (Workbench, ACP, Fluent), Google apps, MS Excel, H/w - FDM 3D printer, Laser Cutting machines, CNC Router

**Objectives of the project :** To optimize the existing VTOL UAV airframe by integrating innovative composite configurations and aerodynamic, modular design solutions to achieve a 40–50% weight reduction, enhance payload efficiency, and ensure cost-effectiveness.

**Major Learning Outcomes :** 1. Advanced understanding of composite Material Design

2. Systematic Design Optimization Skills

3. Integrated Multidisciplinary Engineering Approach

4. Real-World Aerospace Project Execution

5. Proficiency in Finite Element Analysis (FEA) and CAE Tools

Details of Papers/patents : NA

**Brief Description of working environment, expectations from the company :** CSIR – National Aerospace Laboratories (NAL), Bengaluru, offers a highly professional and research-driven environment focused on cutting-edge aerospace technologies. As a premier national R&D institute under the Council of Scientific and Industrial Research (CSIR), NAL fosters a collaborative and innovation-centric culture across multidisciplinary teams.

Interns and project trainees are integrated into active research divisions and are encouraged to contribute meaningfully to real-world aerospace projects. The UAV Design & Integration Division, where this project was undertaken, maintains a balanced mix of experienced scientists, engineers, and technical staff, creating an ideal setting for learning and hands-on experimentation.

The workspace is equipped with advanced tools such as high-performance computing systems, composite fabrication labs, wind tunnel testing facilities, and full-scale prototype workshops. Interns are given access to these resources under supervision, promoting practical understanding alongside theoretical knowledge. Mentorship at NAL is both structured and supportive. Regular reviews, technical discussions, and open access to guidance from experts help in navigating complex project challenges. The environment promotes discipline, independent thinking, and ownership of tasks while maintaining a strong team spirit. Overall, CSIR-NAL offers an intellectually stimulating and well-resourced environment that bridges academic knowledge with industrial aerospace practices—making it a valuable experience for any engineering student or researcher.

**Academic courses relevant to the project :** FEA, Advanced composites, Engg. Maths, SAT, Research Practice



**PS-II STATION: CSIR-NAL, BENGALURU**

**FACULTY NAME: SAMEER GUPTA.**

**STUDENT NAME: MEKADE KUNAL HEMANT (2023H1410080G)**

Student Write-up

**PS-II Project Title: CFD SIMULATION OF AGARD-B WING MODEL**

**Short Summary of work done during PS-II :** This project details a Computational Fluid Dynamics (CFD) study of the AGARD-B wing model. Using Pointwise for mesh generation, SU2 for solving, and ParaView for post-processing, the study simulated aerodynamic coefficients for the AGARD- B model at various Mach numbers and angles of attack, then compared these results with experimental wind tunnel data. The CFD predictions closely matched experimental values, validating the simulation approach. The work highlights CFD's effectiveness for aerodynamic analysis and suggests future studies should use CFD to quantify and correct for wind tunnel support interference, improving the accuracy of experimental aerodynamic measurements.

**Tool used (Development tools - H/w, S/w) :** 1) SolidWorks 2) Pointwise 3) SU2 4) ParaView 5) Microsoft Excel

**Objectives of the project :** 1) CFD simulation of AGARD-B wing model. 2) Comparison of CFD results with available wind tunnel results.

**Major Learning Outcomes :** 1) Learned new CFD software like Pointwise, SU2, and ParaView  
Details of Papers/patents : NA

**Brief Description of working environment, expectations from the company :** The organization expects to know the CFD software which are used for the simulation in the organization, which might not be the case sometimes, then the intern has to learn that particular software.

**Academic courses relevant to the project:** CFD

**PS-II STATION: CSIR-NAL, BENGALURU**

**FACULTY NAME: SAMEER GUPTA.**

**STUDENT NAME: ABHISHEK KANG (2023H1410082G)**

Student Write-up

**PS-II Project Title:** Multidisciplinary Design Optimization of a Battery-Electric Light Aircraft Using Geometric Programming: A Comparative Study of Blown-Wing and Conventional Configurations

**Short Summary of work done during PS-II :** During PS-II at CSIR-NAL, I worked on the design optimization of a fully battery-electric light aircraft using GPkit. The study focused on comparing

a blown wing (using distributed electric propulsion) with a conventional wing configuration. Starting from heuristic sizing and MATLAB optimization, I reformulated the opportunity into a GP structure for global optimality. Both configurations were sized for STOL capabilities under strict weight and range constraints. Mission segments including takeoff, climb, cruise, and landing were modeled in detail, enforcing aerodynamic and power constraints. I also performed structural sizing of the wing and empennage using the GPkit GPlibrary and validated the results using Hypermesh. Altair Optistruct-based FEM analysis. The blown wing showed significant improvements in takeoff performance due to lift augmentation, whereas the conventional wing offered better cruise efficiency. The results provide insights into design trade-offs and the role of DEP in small electric aircraft.

**Tool used (Development tools - H/w, S/w) :** GPkit (Python-based Geometric Programming) MATLAB Hypermesh ,Altair Optistruct for FEM analysis PyQt for GUI development XFOIL for airfoil performance validation Excel (preliminary sizing)

**Objectives of the project :** Design and optimize a fully electric light aircraft under MTOW constraint of 750 kg. Compare two configurations: Conventional Wing vs Blown Wing using Distributed Electric Propulsion (DEP). Use Geometric Programming (GPkit) for early-stage design and sizing. Perform structural validation via Finite Element Modeling (FEM). Analyze energy use, aerodynamic efficiency, and mission performance for both designs

**Major Learning Outcomes :** Applied geometric programming to aircraft design using GPkit. Developed multi-segment mission models for electric aircraft.

Conducted comparative performance and energy analysis of DEP and conventional configurations.

**Details of Papers/patents :** The Project I have done have potential to be published as a conference paper as it is novel

**Brief Description of working environment, expectations from the company :** CSIR-NAL offered a highly research-oriented and collaborative environment. I was given the freedom to explore, design, and validate aircraft models using modern tools. The guidance provided by my mentor, Dr. A.C. Pankaj, was instrumental in shaping the project technically. The work culture fostered independent opportunity-solving and interdisciplinary integration. I had access to simulation tools that allowed thorough model development. My expectations of learning advanced optimization, exposure to real-world aircraft design, and integration of theory with practical tools met my expectations

**Academic courses relevant to the project:**

Optimization Techniques  
Aircraft Structures Finite  
Element Methods  
Aerodynamics Propulsion  
Systems

**PS-II STATION: CSIR-NAL, BENGALURU**

**FACULTY NAME: SAMEER GUPTA.**

**STUDENT NAME: KOSANA SUNEETH (2023H1410091G)**

Student Write-up

**PS-II Project Title:** Optimize code to Compute Elevator Hinge Moment and Forces, Discrete Gust Response Analysis, Optimization of Propeller using BEM Theory aided by OpenVSP and Neural Foil

**Short Summary of work done during PS-II :** During my PS-II at CSIR-NAL, I worked under the Roddam Narasimha Civil Aircraft Centre (RNCAC) in the Aerodynamics Division. My primary focus was on analyzing the longitudinal stability and trim of the SARAS Mk-II aircraft. I performed calculations to determine the elevator and flap deflections required for stable flight conditions and analyzed the hinge moments and tab forces to ensure that the stick force remained within pilot-operable limits. I also contributed to the simulation of aircraft response to discrete gusts using unsteady aerodynamic theory, employing the Küssner function and trapezoidal time integration in MATLAB. Furthermore, I validated simulation results with a reference AIAA paper to ensure the accuracy of our model. This experience helped me apply theoretical knowledge from flight dynamics courses to practical opportunities in aircraft stability and control, enhancing both my technical and analytical abilities

**Tool used (Development tools - H/w, S/w) :** MATLAB, MS Excel ,catia

**Objectives of the project :** To determine in-flight elevator and flap deflections for longitudinal stability. To calculate trim tab force and stick force required for proper elevator control. To simulate aircraft response to discrete gusts using unsteady aerodynamic models. To validate existing methods with AIAA standards and real aircraft parameters.

**Major Learning Outcomes :** Understanding of control surface deflections and hinge moment calculations.

Familiarity with aircraft trim and stick force estimation methods.

Application of Küssner function for gust response modeling.

Proficiency in MATLAB for flight simulation. Exp

**Details of Papers/patents :** No direct publications/patents, but work is aligned with ongoing research within the SARAS Mk-II development program and references an AIAA paper for gust analysis validation

**Brief Description of working environment, expectations from the company :** The working environment at CSIR-NAL was highly research-driven and collaborative. The Aerodynamics Division fostered an atmosphere of inquiry and knowledge sharing. I had access to experienced mentors, regular technical discussions, and real-world opportunities in aircraft development.

I was expected to be proactive, technically sound, and capable of working independently on tasks like flight simulation and analytical modeling. The team ensured that the objectives were clearly communicated and provided valuable feedback regularly.

Overall, the company provided a great learning platform with a balance between mentorship and autonomy. My expectations to work on relevant, impactful aerospace opportunities and gain domain-specific insights were completely met.

**Academic courses relevant to the project :** advanced mathematics, dynamics and vibrations

**PS-II STATION: DASSAULT SYSTEMS, PUNE**

**FACULTY NAME: SAMEER GUPTA.**

**STUDENT NAME: ANMOL MAISNAM (2023H1060123G)**

Student Write-up

**PS-II Project Title:** Internship at Dassault Systems

**Short Summary of work done during PS-II :** The team develops engineering templates and test the platform for providing customized work-flows that perform CAE operations tailored for specific customer requirements

**Tool used (Development tools - H/w, S/w) :** 3DEXPERIENCE, Catia

**Objectives of the project :** Learning the Dassault Systems platform for working on transport & mobility projects to fulfill customer requirements.

**Major Learning Outcomes :** 1. Expertise in surfacing operations for CAD  
2. 3D modeling and meshing techniques for engineering simulations focusing on structured meshing methodologies and the use of partitioning for simplifying complex geometries.  
3. Best practices in simulation

Details of Papers/patents : NA

**Brief Description of working environment, expectations from the company :** The team has an atmosphere of collaborative & dynamic attitude sharing their respective expertise for design and analysis for mechanical systems. Regular meetings and documentation were done for tracking progress. I was expected to pick up the usage of the platform used here to support the team by verifying CAD & Mesh models for running simulations.

**Academic courses relevant to the project:** ME G611 Computer Aided Analysis & Design, ME G512 Finite Element Method.

**PS-II STATION: DASSAULT SYSTEMS, PUNE**

**FACULTY NAME: SAMEER GUPTA.**

**STUDENT NAME: GAUTAM SUNIL (2023H1060155P)**

Student Write-up

**PS-II Project Title:** Simulation data generation

**Short Summary of work done during PS-II :** Set up different and solved different simulations and generated data files from them.

**Tool used (Development tools - H/w, S/w) :** 3DExperience platform

**Objectives of the project :** Generate data from different simulations.

**Major Learning Outcomes :** Understand optimization of simulation processes, How to use different software related to simulation and optimization.

**Details of Papers/patents :** N.A

**Brief Description of working environment, expectations from the company :** It was very positive and encouraging. Everyone was eager to help and solve any doubts or opportunities faced by the interns.

**Academic courses relevant to the project:** Yes

**PS-II STATION: DASSAULT SYSTEMS, PUNE**

**FACULTY NAME: SAMEER GUPTA.**

**STUDENT NAME: ADITH S (2023H1410103P)**

Student Write-up

**PS-II Project Title:** Dassault Systems Internship

**Short Summary of work done during PS-II :** The internship at Dassault Systems encompasses four projects focused on advanced simulation and analysis within the 3DEXPERIENCE platform. Project 1 involved validating Abaqus CAE against test software for cable modeling, analyzing scenarios like composite cables, joined cables with BEAM/JOIN connectors, and self-contact cases. Key features like nonlinear materials, connector modeling, and pipe elements were tested, with results compared for computational efficiency and accuracy against published studies by Anghel and Taghipour. Project 2 implemented adaptive remeshing using Optimization Process Composer, integrating error indicators from Abaqus to dynamically adjust mesh sizes via Knowledgeware Parameters. The workflow spanned part design to post-processing, utilizing field expressions to positive and professionalize error outputs and optimize structural efficiency.

Project 3 systematically generated runtime error files (.dat, .log, .sta) across solvers (Static Riks, Dynamic Explicit) to create a diagnostic assistant. Errors were categorized into five technical domains: constraint aspects, convergence challengingness, material mismatches, element incompatibility, and interaction errors. Project 4 evaluated the in-house LLM AURA against commercial models (ChatGPT, Perplexity) for simulation task guidance. Tests covered 8 scenarios including buckling analysis and wheel-rail simulation, assessing response feasibility and AURA's contextualized insights leveraging industrial knowledge

**Tool used (Development tools - H/w, S/w) :** 3DEXPERIENCE PLATFORM, Abaqus,

**Objectives of the project :** Setting up simulations/optimization

**Major Learning Outcomes :** 1.Built a strong foundation in simulation-driven engineering and optimization workflows,  
2. Understanding behavior and Ethics in a professional environment  
3.Comprehensive 3DEXPERIENCE Platform Training

Details of Papers/patents : NA

**Brief Description of working environment, expectations from the company :** The working environment during the internship was professional and collaborative, encouraging learning and open communication. We were expected to be proactive, adaptable, and eager to contribute to team projects. The company values punctuality, a positive attitude, and a willingness to learn, aiming to support both professional and personal growth.

**Academic courses relevant to the project :** FEM/ AFEM/ Dynamics and vibration/ Fracture Mechanics

**PS-II STATION: DATAZYMES ANALYTICS PVT.LTD., BENGALURU**

**FACULTY NAME: BHARATHI R.**

**STUDENT NAME: BANGAD MOHIT MANOJKUMAR (2023H1460212H)**

Student Write-up

**PS-II Project Title:** Competitive Intelligence (CI): A Strategic Approach to Market Leadership

**Short Summary of work done during PS-II :** During my PS-II at DataZymes, I worked in the Competitive Intelligence (CI) domain, focusing on market and pipeline analysis in the pharmaceutical sector. My responsibilities included monitoring clinical trials, analyzing competitor strategies, and synthesizing insights from various secondary data sources such as ClinicalTrials.gov, company reports, and scientific congresses (e.g., ATS, ERS). I contributed to developing strategic CI deliverables to support decision-making for clients. The role honed my analytical, research, and reporting skills in a real-world, data-driven environment.

**Tool used (Development tools - H/w, S/w) :** Microsoft Excel (data organization and analysis) Microsoft PowerPoint (CI deliverables and reports) ClinicalTrials.gov and PubMed (clinical and scientific research) Company websites, investor decks, and press releases Internal CI dashboards.

**Objectives of the project :** Track key competitor moves (clinical trials, licensing). Analyze pipeline trends, therapeutic focus areas, and innovation shifts. Identify strategic opportunities and threats to inform corporate decisions.

**Major Learning Outcomes :** Learned how to navigate CI databases and interpret real-world clinical/regulatory data

Understood strategic implications of clinical trial designs, MoA, and endpoint choices Gained practical exposure to competitive benchmarking and deal flow tracking.

Details of Papers/patents : N.A

**Brief Description of working environment, expectations from the company :** The working environment at DataZymes was collaborative, structured, and intellectually stimulating. I was part of a cross-functional team that valued precision, timely delivery, and data-driven insights. Regular discussions with mentors and managers fostered a culture of continuous learning and constructive feedback. The company expected interns to be proactive, detail-oriented, and committed to delivering high-quality outputs.

**Academic courses relevant to the project:** Clinical Research & Regulatory Affairs

Biostatistics & Research Methodology

Basic Pharma Knowledge.

**PS-II STATION: DBOI - BUSINESS FINANCE, MUMBAI**

**FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN.**

**STUDENT NAME: JOSHI KARTIK CHANDRAJIT. (2021A4PS2107P)**

Student Write-up

**PS-II Project Title:** Risk analysis of sterling complex

**Short Summary of work done during PS-II :** We were working on DB's risk engine, reporting profit/loss and risk for our traders in Frankfurt in the consumer price index

**Tool used (Development tools - H/w, S/w) :** Risk engine, excel, canvas, job status manager

**Objectives of the project :** risk engine analysis and analysis of CRU portfolios

**Major Learning Outcomes** : Financial analysis, understanding of different risk products  
Details of Papers/patents : None

**Brief Description of working environment, expectations from the company** : Very comfortable and friendly environment, easy to blend in as alum presence is strong.

**Academic courses relevant to the project:** DRM, FRAM

**PS-II STATION: DBOI - BUSINESS FINANCE, MUMBAI**

**FACULTYNAME:** KRISHNAMURTHY BINDUMADHAVAN.

**STUDENT NAME:** ADDYA KASHYAP (2021A4PS2805H)

Student Write-up

**PS-II Project Title:** Automation

**Short Summary of work done during PS-II** : I worked on automating time-consuming manual processes across different teams within Business Finance Rates to make their day-to-day work more efficient and less repetitive. Using VBA and Python, I built tools and scripts that replaced routine tasks, helping save time, reduce errors, and improve overall workflow. These automations allowed teams to focus on more meaningful and strategic work instead of spending hours on manual updates. Along the way, I got to collaborate with multiple teams, understand how things function in a corporate setup, and strengthen my communication and opportunity-solving skills. I also gained valuable insights into finance-related processes and how different teams come together to support business goals.

**Tool used (Development tools - H/w, S/w)** : VBA, Excel

**Objectives of the project** : The project aims to automate repetitive and time-consuming manual tasks performed by various teams to improve overall efficiency. By streamlining workflows through automation, the goal is to reduce human effort, minimize errors, and free up team members to focus on higher-value activities.

**Major Learning Outcomes** : The project helped me learn VBA for automation, improve my communication skills, and adapt to corporate work culture, including meeting deadlines and collaborating with cross-functional teams. I also gained exposure to various departmental processes.

Details of Papers/patents : -



**Brief Description of working environment, expectations from the company :** The work environment was friendly and supportive, with teammates who appreciated my coding efforts and encouraged learning. While some tasks were challenging, it was a rewarding and enriching experience overall. I hope the company adopts a more structured approach to automation and gives it greater importance across teams.

**Academic courses relevant to the project:** Finance courses, Computer Programming

**PS-II STATION: DBOI - GGCAF, MUMBAI**

**FACULTY NAME:** KRISHNAMURTHY BINDUMADHAVAN.

**STUDENT NAME:** RAGVENDRA PARTAP SINGH (2020B4A41850H)

Student Write-up

**PS-II Project Title:** Credit ratings

**Short Summary of work done during PS-II :** The work primarily involves rating counterparties credit profile and basic financial analysis is used to fulfill that.

**Tool used (Development tools - H/w, S/w) :** Ms Office Suite, Internal Software

**Objectives of the project :** Maintain Regular Coverage for Portfolio ensuring the credit worthiness remains up to date

**Major Learning Outcomes :** Financial Analysis, Corporate Financing, Teamwork

Details of Papers/patents : N.A

**Brief Description of working environment, expectations from the company :** The work environment was pretty relaxed and balanced. Overall, the monthly Pipeline and goals were assigned, and as long as they were fulfilled, there were no aspects as such.

**Academic courses relevant to the project:** All the Finance minor courses

**PS-II STATION: DBOI - OPS, BENGALURU**

**FACULTY NAME:** KRISHNAMURTHY BINDUMADHAVAN.

**STUDENT NAME:** MUPPARAPU GAYATHRI CHOUDARY (2020B3A80900H)

Student Write-up

**PS-II Project Title:** Transformation

**Short Summary of work done during PS-II :** During my internship at Deutsche Bank (DBOI), I worked as a Business Analyst within the Operations division. My responsibilities spanned multiple areas, including Securities Lending Process Analysis, Automation of Settlements Tasks using Power Automate, and Trade Settlement Lifecycle Analysis. I contributed to improving operational efficiency by identifying manual processes and implementing automation solutions. I also collaborated with cross-functional teams to understand process gaps and deliver actionable insights. This experience deepened my understanding of investment banking operations, enhanced my opportunity-solving skills, and strengthened my proficiency in tools like Power Automate and Excel.

**Tool used (Development tools - H/w, S/w) :** Alteryx, MS PowerApps, Power Automate

**Objectives of the project :** To propose a business case and identify opportunities for automation and automate redundant processes

**Major Learning Outcomes :** Technical tools like Alteryx, MS PowerApps, Power Automate  
Details of Papers/patents : None

**Brief Description of working environment, expectations from the company :** The working environment at DBOI is structured yet highly team-specific, with noticeable variations in culture, collaboration, and support across different teams. While some teams are proactive and inclusive, others may offer a less engaging experience, especially for new joiners. The initial phase of the internship can be slow-paced due to delays in project allocation and onboarding, which may lead to a period of limited engagement. However, once assigned to a project and integrated into a supportive team, the experience becomes significantly more productive and enriching.

**Academic courses relevant to the project:** Yes

**PS-II STATION: DBOI MVRM EX VALS, MUMBAI**

**FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN.**

**STUDENT NAME: HARSHIL SHASHIKANT KAPADIA (2021A3PS0860G)**

Student Write-up

**PS-II Project Title: MVRM-Ex Vals**

**Short Summary of work done during PS-II :** Processing of weekly and monthly UAT, checking and analysing Var and svar runs.

**Tool used (Development tools - H/w, S/w) :** Gpc2, gpc, excel, python

**Objectives of the project :** Market risk

**Major Learning Outcomes :** Risk management

Details of Papers/patents : NA

**Brief Description of working environment, expectations from the company :** Very good, very welcoming and cooperating environment with nice and comfortable desks

**Academic courses relevant to the project:** DRM, FUFA

**PS-II STATION: DBOI MVRM VALS, MUMBAI**

**FACULTY NAME:** KRISHNAMURTHY BINDUMADHAVAN.

**STUDENT NAME:** GUNANK AGARWAL (2020B2A12004G)

Student Write-up

**PS-II Project Title:** Valuation Control

Short Summary of work done during PS-II : N/A

**Tool used (Development tools - H/w, S/w) :** N/A

**Objectives of the project :** To negate risk by independent price verification of over the counter trades using a prudent valuation methodology.

**Major Learning Outcomes :** Excel, Python and inhouse software.

Details of Papers/patents : N/A

**Brief Description of working environment, expectations from the company :** N/A

**Academic courses relevant to the project:** Yes

**PS-II STATION: DBOI MVRM VALS, MUMBAI**

**FACULTY NAME:** KRISHNAMURTHY BINDUMADHAVAN.

**STUDENT NAME:** SMRUTIRANJAN MISHRA. (2020B3A10167P)

Student Write-up

**PS-II Project Title: MVRM Valuations**

**Short Summary of work done during PS-II :** I was responsible for managing the Independent Price Verification (IPV) process for fixed income products, with a primary focus on U.S. loans. This role involved conducting comprehensive daily and weekly analyses of trades executed by Deutsche Bank, ensuring accuracy in valuations and adherence to market prices. A significant aspect of my responsibilities included performing detailed investigations into high-risk trades to identify potential discrepancies or aspects. Upon completing these analyses and investigations, I was tasked with preparing and communicating the findings to stakeholders, including teams based in Mumbai and New York, to ensure alignment and address any concerns effectively.

**Tool used (Development tools - H/w, S/w) :** Microsoft Excel, VBA, SQL and proprietary softwares

**Objectives of the project :** To oversee risk management by ensuring that the bank's trading positions are accurately marked to market.

**Major Learning Outcomes :** Risk management by investment banks, learning about different asset classes traded by the bank, Fair value of assets, Price verification

**Details of Papers/patents :** Nil

**Brief Description of working environment, expectations from the company :** Overall, the environment and work culture at Deutsche Bank is very relaxed and supportive. The people working here are approachable and always ready to help with any aspects. They have connectivity events almost every month, which provides a great opportunity to engage with seasoned professionals across various other departments as well. Overall, it's a great atmosphere as long as one delivers the work on time as per the deadlines.

**Academic courses relevant to the project :** DRM, FRAM, Macroeconomics, Money Banking and Financial Markets.

**PS-II STATION: DBOI OPS BENGALURU/JAIPUR/MUMBAI**

**FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN.**

**STUDENT NAME: RAMESTHA PRINCE. (2020B2A11941P)**

Student Write-up

**PS-II Project Title: Automation & Analytics, CB & IB Operations**

**Short Summary of work done during PS-II :** Worked on optimizing interbank claims by analyzing transaction patterns and identifying high-impact BICs, which contributed to reducing per-claim

payouts. Additionally, developed a Power Apps-based Process Training Platform to automate employee training workflows, streamline communication, and enable real-time MIS tracking— driving both operational efficiency and compliance.

**Tool used (Development tools - H/w, S/w) :** PowerApps, Power Automate, Advanced Excel, QlikView

**Objectives of the project :** To optimize interbank claims and enhance operational efficiency by leveraging data analysis and automation through the development of scalable, compliance- focused workflow solutions.

**Major Learning Outcomes :** PowerApps, PowerAutomate, QlikView, Advanced Excel

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** I observed that the working environment is highly team-specific and can vary significantly. During the initial one and a half months of my PS-2, I found the people around me are not that welcoming, which impacted my early experience. However, in the last two months, I had the opportunity to work with a different team and people who were very supportive. I learnt a lot during that phase, which highlighted for me how team-specific the work environment at DBOI can be. Additionally, there was a considerable delay in project allocation - it took nearly a month before I was assigned any project.

**Academic courses relevant to the project:** Yes

**PS-II STATION: DEFENSE INSTITUTE OF PHYSIOLOGY & ALLIED SCIENCES (DIPAS), DRDO, DELHI**

**FACULTY NAME: BHARATHI R.**

**STUDENT NAME: SHAURYA ANAND (2023H1290003P)**

Student Write-up

**PS-II Project Title:** Effect of Hypobaric Hypoxia on Renal function in Male Sprague Dawley Rats

**Short Summary of work done during PS-II :** This research project aimed to understand the physiological and molecular changes occurring in the body during acclimatization to hypobaric hypoxia, comparing them against positive and professional sea-level conditions over a 7-day period. Utilizing Sprague-Dawley rats, the study involved meticulous animal handling, kidney sample collection for lysate preparation, and protein analysis via SDS-PAGE and Western blotting, with data quantified using ImageJ. Key findings revealed a deeper understanding of the human physiological response to low oxygen. Specifically, the experiment confirmed that under hypoxic stress, there is a significant increase in the expression of key regulatory proteins like HIF- 2 and EPO, which are crucial for enhancing oxygen delivery and utilization. This upregulation

activates a cascade of other proteins (including ET-1, Renin, Ang, Ang2), collectively facilitating the body's adaptation. The implications of this work are substantial, contributing to improved strategies for preventing altitude sickness, optimizing human performance in high-altitude environments, and potentially guiding the development of therapeutic interventions for conditions involving oxygen deprivation. The project provided critical learning regarding the kinetics of acclimatization, confirming the central roles of HIF-2 and EPO, and elucidating the complex protein pathways involved in adapting to low oxygen levels.

**Tool used (Development tools - H/w, S/w) :** Prism, ImageJ, MS Excel and, MS PowerPoint

**Objectives of the project :** To study the Impact of Hypobaric Hypoxia on Hematological Parameters and Renal protein in Male Sprague Dawley Rats

**Major Learning Outcomes :** This experiment conducts physiological and biomedical research to improve human performance in extreme and wartime environment.

**Details of Papers/patents :** This research demonstrates about the comparative study of physiological and hematological changes in the body when exposed to the hypobaric hypoxia of 25,000 ft for the duration of 7 days between sea level and hypobaric hypoxic exposed male Sprague Dawley

**Brief Description of working environment, expectations from the company :** DIPAS (Defense Institute of Physiology and Allied Sciences) under DRDO focuses on research and development in physiology and allied sciences for defense applications. The working environment is research- oriented with interdisciplinary approaches and state-of-the-art facilities. Expectations include conducting innovative research, developing solutions to enhance military personnel's performance and health, publishing research papers, and collaborating with other labs and organizations. Key areas include environmental physiology, high-altitude research, exercise physiology, and biomedical engineering, aiming to improve defense personnel's health, performance, and safety through scientific advancements.

**Academic courses relevant to the project:** GET(Genetic Engineering Technology), Experimental Techniques (ET) and (SAT)

**PS-II STATION: DEVELOPMENT CONSULTANTS PVT. LTD. (DCPL), MUMBAI**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA.**

**STUDENT NAME: NAGA VENKATESH VARIGONDA (2023H1430031P)**

Student Write-up

**PS-II Project Title:** Design of UTP (Warehouse) Connections, Pipe rack and STG (Standard Turbine Generator) Building

**Short Summary of work done during PS-II :** During my PS-II at DCPL Navi Mumbai, I actively contributed to three major industrial design projects: UTP (Warehouse) Connections, Pipe Racks, and the STG (Steam Turbine Generator) Building. These projects offered a strong foundation in practical structural engineering, combining theoretical knowledge with real-world applications. The first project focused on the steel connection design of the UTP Warehouse. Using SAP2000, I carried out detailed analysis and design of various shear connections, base plates, anchor bolts, and stiffeners. The work required an understanding of load transfer mechanisms and structural behavior at joints, and involved preparing design calculation sheets in compliance with relevant codes and standards. The second project involved the design and analysis of Pipe Racks using STAAD Pro CONNECT. This included precise load calculations—dead, live, seismic, wind, and various pipe loads provided by the client. I also worked on ductile detailing, reinforcement planning for beams and columns, and formwork aspects. In addition, I participated in the preparation of the Bill of Quantity (BOQ), gaining insights into cost estimation and material planning. The third and ongoing project focused on the STG Building, an extension of an existing structure. I performed comprehensive structural analysis in STAAD Pro CONNECT, considering multiple load cases including crane loads, seismic and wind forces, and internal process loads. I also coordinated with draftsmen to develop detailed structural drawings that reflected the design accurately. This internship provided hands-on experience in industrial structural design, deepened my understanding of software tools, and enhanced my ability to apply engineering concepts in a professional environment.

**Tool used (Development tools - H/w, S/w) :** STAAD PRO CONNECT Edition, SAP 2000, Microsoft EXCEL

**Objectives of the project :** Design of UTP (Warehouse) Connections, Pipe rack and STG (Standard Turbine Generator) Buildings

**Major Learning Outcomes :** connections designs in steel structures, detailed ductile detailing, BOQ, efficient use of software, Wind load calculations, foundation design, base plate designs.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The working environment at DCPL Navi Mumbai was highly professional, collaborative, and conducive to learning. As a structural engineering intern, I was integrated into an experienced team of engineers and draftsmen who maintained a strong work ethic and commitment to quality. The office environment encouraged open communication, where doubts and ideas were welcomed, and guidance was readily available from senior engineers. Regular discussions, design reviews, and progress meetings helped in understanding the workflow and real-time opportunity-solving techniques used in the industry.

DCPL followed a systematic approach to project execution, adhering strictly to industry standards and safety codes. Software tools such as STAAD Pro CONNECT and SAP2000 were actively used in the design process, and I was expected to adapt to them quickly. I was given opportunities to handle real project data, perform structural calculations, assist in BOQ preparation, and

collaborate with draftsmen on technical drawings. This exposure to live projects greatly enhanced my practical knowledge and confidence.

The expectations from the company were clear: a proactive attitude, willingness to learn, attention to detail, and the ability to apply academic concepts in a real-world setting. Time management, accountability, and regular reporting of tasks were also essential. Despite being an intern, I was entrusted with meaningful responsibilities, which helped me grow both technically and professionally. Overall, DCPL provided a supportive yet challenging environment that encouraged continuous learning and development in the field of structural engineering.

**Academic courses relevant to the project :** 1. Advanced Structural Analysis

2. Dynamics of Structures

3. Earthquake Engineering

4. Advanced Concrete Structures

5. Design of foundations for dynamic loading

6. Advanced steel structures

**PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI.**

**STUDENT NAME: NIRMAL S (2020B5A32050G)**

Student Write-up

**PS-II Project Title:** Enhancing Discoverability of Analytical Widgets

**Short Summary of work done during PS-II :** In DevRev, we have widgets that are essentially a wrapper over a SQL query that provide solid analytical insights to the user from tons of data. With a lot of agentic surfaces coming up, it would be extremely powerful to allow agents to discover these widgets and incorporate them into their response. In this project, we benchmark various strategies on semantically indexing data widgets in DevRev, and then also build the semantic store pipeline to implement the same.

**Tool used (Development tools - H/w, S/w) :** Languages: Golang, Python, TypeScript; Tools: OpenSearch, Bedrock, DevRev's Workflows Engine

**Objectives of the project :** 1. Benchmark strategies of semantically indexing widgets. 2. Build the semantic store pipeline on the same for widgets and move them to the new indexing pipeline.

**Major Learning Outcomes :** Learnt a lot of good core engineering practices. Understood AI tooling, frameworks, and proper benchmarking techniques. Learnt the importance of assigning priorities and bandwidth.



**Details of Papers/patents** : Non-published benchmark results, since research was specific to DevRev and this work falls under an NDA.

**Brief Description of working environment, expectations from the company** : The company is great to learn things hands-on - the working environment is very happening, and the senior engineers are almost always happy to help you with any questions/doubts - provided you've done some thinking and tried to find the answer yourself. The most important thing I value here is the trust they put on interns to do research, design and propose solutions. There's very little handholding, you're allowed and in fact encouraged to find solutions by yourself. Another great thing is the flexibility - there's no dress code, no strict office timings, no mandatory office days - the only expectation is to finish the work assigned to you.

**Academic courses relevant to the project**: Well I'm a Physics + EEE dualite so I didn't really have much CS academic help when I started. But it is very possible to learn things on the job, as long as your core engineering fundamentals are sound. That being said, I'd assume a strong understanding

**PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI .**

**STUDENT NAME: DIVYATEJA PASUPULETI (2021A7PS0075H)**

Student Write-up

**PS-II Project Title: Filter Generation**

**Short Summary of work done during PS-II** : The main goal of my internship here at DevRev involved looking after several aspects in the services I had introduced during my summer internship and adding new features to our in-house agent to enable it to generate filters that reduce the search space for queries. We started off with improvements to the TextExtract RPC, which reduced the Time to First Chunk, and the introduction of contextual chunking, which improved recall by 10% in benchmarks. Additionally, filter generation was added, allowing the agent to create search filters dynamically.

**Tool used (Development tools - H/w, S/w)** : Python, Langfuse, Docker

**Objectives of the project** : To make an LLM agent generate filters using a non-thinking LLM

**Major Learning Outcomes** : Prompt Engineering, Python, Optimization

**Details of Papers/patents** : NA

**Brief Description of working environment, expectations from the company :** It was very relaxed and balanced and inclusive.

**Academic courses relevant to the project:** NLP

**PS-II STATION:** DEVREV CLOUD INDIA PVT. LLTD., BENGALURU

**FACULTY NAME:** MOHAMMAD SALEEM BAGEWADI

**STUDENT NAME:** SHANAY SAWAN MEHTA (2021A7PS1322G)

Student Write-up

**PS-II Project Title:** Fine-tuning and serving expert LLMs.

**Short Summary of work done during PS-II :** I worked on the training and deployment of large language models (LLMs), including both supervised fine-tuning and reinforcement learning-based optimization. My responsibilities included designing and implementing robust data curation pipelines to prepare high-quality datasets for expert agents, as well as developing evaluation pipelines to measure model performance across various tasks and metrics. I fine-tuned open- source LLMs on carefully curated proprietary data to align them with specific use cases and domain requirements. Additionally, I maintained the infrastructure necessary to serve these models efficiently at scale, with an emphasis on low-latency, high-throughput inference. This included optimizing model serving stacks, setting up distributed systems for model deployment, and ensuring scalability and reliability in production environments.

**Tool used (Development tools - H/w, S/w) :** Python, Langchain, LLaMAfactory, AWS, GitHub

**Objectives of the project :** 1. Setup data curation and LLM evaluation pipelines for expert agents. 2. Fine-tuning open source LLMs on personally curated data. 3. ML-Infra: Setup infrastructure for serving LLMs and getting high throughput.

**Major Learning Outcomes :** 1. Understood different ways of data curation for training LLMs  
2. Learnt how to fine-tune LLMs.  
3. Learnt how to serve LLMs and optimize to get high throughput.

**Details of Papers/patents :** 1. Paper: Efficient Single-Pass Training for Multi-Turn Reasoning(<https://arxiv.org/abs/2504.18246>)

**Brief Description of working environment, expectations from the company :** The working environment has been excellent—collaborative, supportive, and intellectually stimulating. Mentors are highly knowledgeable and approachable, always willing to guide and provide constructive feedback. Team members are cooperative and create a positive atmosphere that

encourages learning and growth. The culture promotes open communication, continuous improvement, and a strong sense of ownership over one's work.

Expectations are clear and fair. Employees are trusted to work sincerely during their designated hours without distractions, demonstrating commitment and focus. Timely attendance in meetings, clear communication, and responsiveness are essential and appreciated. Delivering high-quality work, meeting deadlines, and proactively seeking feedback are core to the work ethic.

**Academic courses relevant to the project:** Machine Learning, Artificial Intelligence

**PS-II STATION:** DEVREV CLOUD INDIA PVT. LLTD., BENGALURU

**FACULTY NAME:** MOHAMMAD SALEEM BAGEWADI

**STUDENT NAME:** ITALIYA DHYEY KISHOR. (2021A7PS1463P)

Student Write-up

**PS-II Project Title:** Migration Framework and WISP reindexing

**Short Summary of work done during PS-II :** The internship provided an invaluable opportunity to work on real-world opportunities, specifically revolving around the WISP reindexing aspects and the development of a new, robust data migration framework. This abstract details the challenges faced by Devrev's WISP related to reindexing and proposes solutions to decouple long- running data migrations from service deployments. Historically, WISP reindexing, necessitated by schema changes, new object types, or embedding model updates, has blocked service deployments due to static mapping dependencies and the need for new indexers to become healthy before new code could be deployed. The proposed solutions involve removing generic fields , eliminating indisstry Incarnation in WISP for dynamic mapping resolution , and optimizing reindexing by reusing existing OpenSearch indexes for field type changes, new object types, and model changes. Additionally, a new migration framework is introduced to address broader aspects with data migrations, offering features like state management, checkpointing, retry ability, and rate limiting, thereby decoupling them from the deployment pipeline. The report also touches upon customer-initiated jobs, proposing the use of a workflow platform for mass upgrades. This experience was instrumental in developing both technical and soft skills, providing a comprehensive understanding of industry practices and collaborative opportunity-solving.

**Tool used (Development tools - H/w, S/w) :** Cursor, AWS.

**Objectives of the project :** To create a framework that runs internal migrations safely.

**Major Learning Outcomes :** Backend software development.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** It was relaxed and balanced and very inclusive.

**Academic courses relevant to the project:** OS, Networks

**PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI .**

**STUDENT NAME: AARYAN GARG . (2021A7PS2222P)**

Student Write-up

**PS-II Project Title:** Analytics Agent

**Short Summary of work done during PS-II :** During my Practice School-II internship at DevRev, I was part of the Artificial Intelligence team, where I worked on building internal tools and AI- powered features to improve the platform's functionality and user experience. My work focused on enhancing agent behavior, streamlining internal workflows, and enabling intuitive analytics interactions using large language models. I contributed to the development, integration, and evaluation of various AI tools, while also engaging in architectural discussions and product design reviews. Throughout the internship, I had the opportunity to work across different layers of the stack, gaining exposure to backend systems, front-end development, and LLM-based evaluation strategies. I collaborated closely with engineers, designers, and product managers, which helped me build a strong sense of ownership and cross-functional communication. The fast-paced environment taught me how to prioritize tasks, manage deadlines, and iterate quickly based on feedback. Overall, the experience helped me grow both technically and professionally while making meaningful contributions to a high-impact product.

**Tool used (Development tools - H/w, S/w) :** Next.js, Go, Tailwind CSS, LLMs, GitHub, CircleCI, Vercel, Protobuf, RPC, JSONSchemas, DevRev APIs, Neuron architecture

**Objectives of the project :** Enhancements to DevRev's Analytics Agent Capabilities

**Major Learning Outcomes :** - Deepened my understanding of full-stack development using technologies like Next.js and Go.

- Gained practical experience in integrating and evaluating LLMs in production environments.

- Improved my skills in schema design, benchmarking, and prompt-tuning

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment at DevRev was extremely supportive and collaborative. It was largely self-paced, with a strong sense of trust placed in individuals to manage their own time and responsibilities. There was no pressure to rush deliverables, but the expectations are high. I was involved in end- to-end development cycles, from attending team meetings and making technical decisions to implementing features, resolving bugs, and contributing to product discussions. I had the opportunity to interact with a wide range of team members across functions, including sales, product, and engineering, which gave me a holistic view of how cross-functional teams operate in a modern tech organization.

**Academic courses relevant to the project:** Deep Learning, ML

**PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI .**

**STUDENT NAME: UJJWAL AGGARWAL . (2021A7PS2427P)**

Student Write-up

**PS-II Project Title:** Customization for DevRev Features

**Short Summary of work done during PS-II :** In a nutshell, Refactoring of legacy code, adding some new features, and preparing design docs for the same

**Tool used (Development tools - H/w, S/w) :** basic software development environment for the assigned work

**Objectives of the project :** Refactor legacy code, add new features, prepare design docs for the same

**Major Learning Outcomes :** Professional Software Development in high stake environment for customer facing products and services

**Details of Papers/patents :** NDA

**Brief Description of working environment, expectations from the company :** Company culture is relaxed and balanced. You are not micro managed. you get to take ownership of your work. rather you need to. Expectations are proactive communication, and getting the work done without relying on other excessively.

**Academic courses relevant to the project :** Cloud Computing

**PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI .**

**STUDENT NAME: ANSH GOYAL (2021A7PS2614H)**

Student Write-up

## **PS-II Project Title: Workflows and Customizations**

**Short Summary of work done during PS-II :** During the PS-II internship, the primary focus was on enhancing the DevRev platform by advancing its automation, customization, and AI capabilities. A key area of work involved the integration of custom objects into the workflow builder, enabling users to define and automate business-specific entities as first-class citizens within the system. This significantly improved the platform's flexibility and adaptability. Additionally, I contributed to implementing support for idempotent PUT operations in the API layer, ensuring predictable and robust interactions with custom objects. Another major contribution was towards the development of workflow serialization and templating features. These enhancements addressed challenges related to the reusability and portability of complex workflows, allowing users to define, export, and deploy automation templates across environments seamlessly—paving the way for a “workflow as code” approach. I also worked on exposing internal platform operations as AI agent skills, creating interfaces that could be leveraged to build intelligent, context-aware agents. Throughout the project, I gained hands-on experience in designing extensible APIs, working with large-scale systems, and aligning platform-level improvements with user needs. The work done during PS-II not only strengthened the technical foundation of DevRev's platform but also contributed meaningfully to its vision of becoming a highly intelligent and customizable ecosystem for modern software development and operations.

**Tool used (Development tools - H/w, S/w) :** GoLang, Temporal

**Objectives of the project :** The objective of this project is to significantly enhance DevRev's core platform by unifying workflow automation, deep customization, and AI integration into a cohesive, intelligent system. It aims to streamline complex business processes through advanced automation, empower enterprises to model their unique business entities via custom objects, and embed AI by exposing platform operations as reusable “skills.” Together, these enhancements are designed to create a highly adaptable, efficient, and future-proof platform that supports the evolving needs of modern product and engineering teams.

**Major Learning Outcomes :** The **Major Learning Outcomes** of this project include a deeper understanding of how to design and implement scalable workflow automation systems, the technical challenges and solutions involved in supporting highly customizable data models.

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment at DevRev was dynamic, collaborative, and intellectually stimulating. I was part of

a technically strong and supportive team that encouraged open communication, knowledge sharing, and independent ownership of tasks. Despite working in a fast-paced, high-impact environment, the culture was inclusive and empathetic, with a strong emphasis on mentorship and continuous learning. Regular check-ins, constructive feedback, and access to experienced engineers created a healthy balance between guidance and autonomy.

From the beginning, I was trusted with meaningful responsibilities that directly contributed to core platform features. The team's expectation was not only to deliver quality code but also to think deeply about design decisions, scalability, and user experience. This challenged me to grow both technically and professionally.

My expectations from the company were largely around exposure to real-world, large-scale product development, the opportunity to work on impactful projects, and a culture that values learning. DevRev met and exceeded these expectations by giving me the chance to contribute to strategically significant features, learn from seasoned engineers, and gain a deep understanding of modern SaaS product architecture. The experience was instrumental in sharpening my technical skills and expanding my perspective on building intelligent, extensible platforms.

**Academic courses relevant to the project :** Software Engineering, Database Systems, Operating Systems, Object Oriented Programming

**PS-II STATION: DEVREV CLOUD INDIA PVT. LLTD., BENGALURU**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI .**

**STUDENT NAME: PRATEEK SAURABH CHITRE (2021A7PS2841G)**

Student Write-up

**PS-II Project Title:** UserAccessInfo Mechanisms and No Actor Authorization

**Short Summary of work done during PS-II :** During my PS-II at Devrev Cloud Pvt. Ltd., I worked on two key projects aimed at enhancing system performance and public accessibility within the Multifactor Authentication (MFZ) framework. The first project focused on optimizing the MFZ evaluation process by developing the UserAccessInfo Remote Procedure Call (RPC). This solution consolidated multiple network calls into a single, streamlined RPC, significantly improving system throughput by 61% and reducing average latency by 38%. I designed and implemented the RPC, integrated caching mechanisms, optimized database and cache operations, and conducted extensive load testing to measure performance improvements. The second project, No Actor Authorization, aimed to improve the platform's search engine optimization (SEO) by enabling public resources to be accessed and indexed by search engines without requiring traditional authorization tokens. I modified the MFZ system to support anonymous actors and integrated policy changes using the Open Policy Agent (OPA) and Styra to ensure secure, token-free access for public resources like articles and marketplace items. This solution successfully enhanced the discoverability of public content while maintaining the platform's security standards. Both

projects contributed to Devrev's goals of achieving high system efficiency and expanding organic reach, while upholding robust security protocols.

**Tool used (Development tools - H/w, S/w) :** gRPC, MongoDB, Redis, ghz (gRPC load testing tool), Datadog, Open Policy Agent (OPA), Rego, Styra, Git, Protocol Buffers (ProtoBuf), Python, Go, VS Code, Postman

**Objectives of the project :** UserAccessInfo RPC: To optimize the MFZ evaluation process by consolidating multiple network calls into a single Remote Procedure Call (RPC) to improve system throughput and reduce latency. No Actor Authorization: To enable search engines to access and index public resources on the platform without requiring authorization tokens, thereby improving search engine visibility while maintaining security.

**Major Learning Outcomes :** During my PS-II at Devrev Cloud Pvt. Ltd., I gained valuable experience in designing and implementing efficient Remote Procedure Calls (RPCs) to optimize system performance. I developed a strong understanding of caching strategies, including cache invalid

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment at the company was fast-paced, dynamic, and highly collaborative, reflecting the typical culture of a growing startup. The teams operated with a flat hierarchy, promoting open communication and easy access to mentors, managers, and cross-functional teams. There was a strong emphasis on taking ownership of tasks and delivering impactful solutions within tight deadlines, providing an excellent platform to develop technical and opportunity-solving skills in real-world scenarios. The company fostered a culture of continuous learning, encouraging interns to actively contribute to live projects and engage in technical discussions. Flexibility in work hours and a solution-driven mindset were highly valued, along with the ability to adapt quickly to changing priorities. The expectations from the company centered around proactive learning, independent research, and delivering high-quality, reliable code that could directly influence the product. The environment encouraged both personal and professional growth, making it a highly enriching learning experience.

**Academic courses relevant to the project:** Data Structures and Algorithms, Database Systems, Object Oriented Programming, Computer Networks, Operating Systems

**PS-II STATION: DEVREV CLOUD INDIA PVT. LTLTD., BENGALUR**

**FACULTY NAME: MOHAMMAD SALEEM BAGEWADI .**

**STUDENT NAME: GIRIRAJ CHANDAK (2021A7PS3190H)**



## **PS-II Project Title: Conversational Backend**

**Short Summary of work done during PS-II :** During my internship, I focused on enhancing communication systems and user experience through multiple technical initiatives. I implemented customizable data structures for user messaging, enabling personalized communication experiences. A significant achievement was developing an automated title generation system. I also worked on system identification mechanisms to streamline internal processes and enhance workflow efficiency. Integration work involved connecting messaging systems with automation workflows, addressing scalability challenges that emerged with increased user activity. Security enhancements formed another crucial aspect of my work, where I implemented access control mechanisms and data migration systems to ensure unauthorized access prevention. I also contributed to system transparency by adding detailed tracking for automated actions. Throughout the internship, I gained hands-on experience with modern backend technologies and messaging systems. The work required understanding complex system architectures, writing efficient code, and considering various edge cases. I developed a product- focused mindset, learning to balance technical requirements with user needs. The experience taught me the importance of taking ownership, writing clear documentation, and anticipating potential aspects before they impact users. Future work includes performance optimization and system monitoring improvements.

**Tool used (Development tools - H/w, S/w) :** GoLang, gRPC, Kafka.

**Objectives of the project :** Enhance user communication experience through improved chat functionality, implement automated content generation, strengthen system security, improve workflow integration, and optimize platform scalability and performance.

**Major Learning Outcomes :**

1. Enhanced proficiency in backend development and system design
2. Developed skills in message processing and real-time communication systems
3. Learned to write maintainable code and anticipate edge cases

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Working environment at DevRev is pretty good. Mentors often guide you with every minute detail of the work and people are always willing to help.

**Academic courses relevant to the project :** Data structures and algorithms, Computer networks, Computer programming.

**PS-II STATION: DEZERV INVESTMENTS PVT. LTD , BBANGALORE, BENGALURU**

**FACULTY NAME: K VENKATASUBRAMANIAN.**

**STUDENT NAME: SUPREETH M.K. (2020B5A70596P)**

Student Write-up

**PS-II Project Title:** Corpus In to Wealth Spectrum

**Short Summary of work done during PS-II :** Worked on various projects which included refactoring of existing code and adding features to existing services.

**Tool used (Development tools - H/w, S/w) :** Postman

**Objectives of the project :** Build a dashboard to help track the progress of orders and automate the process for higher efficiency and lower manual errors.

**Major Learning Outcomes :** Golang, React

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Very accommodating environment with teams looking into the benefits of both the intern and the company. High-paced work environment

**Academic courses relevant to the project:** Yes

**PS-II STATION : DEZERV INVESTMENTS PVT. LTD, BANGALORE**

**FACULTY NAME: K VENKATASUBRAMANIAN.**

**STUDENT NAME: YASH SANGRAM BARGE. (2021A7PS0006P)**

Student Write-up

**PS-II Project Title:** N/A (Multiple engineering tasks)

**Short Summary of work done during PS-II :** Mostly backend development, building features that were a part of a bigger overall deployment that was worked on with my coworkers. Also, had to refactor an old existing Python microservice. Was given full responsibility for maintaining that microservice and fixing any bugs that occurred in production.

**Tool used (Development tools - H/w, S/w) :** Python, Golang, OpenTelemetry, Docker, Microservices

**Objectives of the project :** Building features and fixing bugs

**Major Learning Outcomes** : Learned a lot about backend development, particularly regarding Python. Also learned a lot about microservices, OpenTelemetry tracing, and Dockerfiles.

**Details of Papers/patents** : N/A

**Brief Description of working environment, expectations from the company** : Relatively lenient working environment, weren't strict about in-time and out-time as long as you were there for standup and finished your work in time.

you are also given the opportunities to work on non-trivial things that help you improve as a software engineer.

**Academic courses relevant to the project** : OOP, CP, DSA

**PS-II STATION** : DEZERV INVESTMENTS PVT. LTD , BANGALORE ,BENGALURU

**FACULTY NAME**: K VENKATASUBRAMANIAN .

**STUDENT NAME**: LAKSHYA VIJAY (2021A7PS2566G)

Student Write-up

**PS-II Project Title**: SDE Intern

**Short Summary of work done during PS-II** : I have worked on reducing the number of DB operations when extracting data for the user, have built a service to facilitate automation testing, debugged on-call aspects critical for business and client, worked full stack on dashboards for internal usage

**Tool used (Development tools - H/w, S/w)** : Golang, React, Python, MongoDB, PostgreSQL

**Objectives of the project** : To build features in the backend to track user activities, also to enhance DB operations and to build dashboards to facilitate DB operations

**Major Learning Outcomes** : Developing, debugging and deploying features

**Details of Papers/patents** : -

**Brief Description of working environment, expectations from the company** : The working environment was quite good and promotes learning and implementing features quickly, expectations may vary from team to team, and also on the tasks assigned. Working hours are quite flexible.

**Academic courses relevant to the project** : DBMS, DSA, DAA

**PS-II STATION: DIGIWOKMEDIA, VISAKHAPATNAM**

**FACULTY NAME: KRANTHI KUMAR PALAVALASA**

**STUDENT NAME: SANSKRITI SHARMA (2020B4A42180H)**

Student Write-up

**PS-II Project Title:** digital marketing

**Short Summary of work done during PS-II :** During my PS-II at DigiWok Media, I worked on diverse content and digital marketing projects across industries like tech (Spearsoft, Innocito), education (VSC Club), fashion, and sustainable farming. I created SEO blogs for RAKEZ, a UAE- based business hub, and led keyword optimization using tools like Ubersuggest and Google Trends. I developed storytelling-based campaigns for brands — writing LinkedIn series names, quizzes, contests, and voiceovers for promos. I ideated full digital strategies including visual styles, tone, and scriptwriting — notably for the VSC Summer Camp and Spearsoft blog on agentic automation.

**Tool used (Development tools - H/w, S/w) :** Google Workspace (Docs, Sheets, Slides) – collaboration & planning Canva – design and carousel creation

**Objectives of the project :** To conceptualize and execute content strategies for brands across sectors To create SEO-optimized blogs and engaging social media content To increase brand engagement through storytelling, educational posts, and interactive formats To explore content- based voiceovers and video scriptwriting.

**Major Learning Outcomes :** Learned to adapt writing tone and strategy across industries (tech, fashion, agriculture, education)

Gained hands-on experience in scripting, voiceovers, and video ideation

Understood platform-based content planning (LinkedIn vs Instagram) Improved pro

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The working environment at DigiWok Media was highly collaborative, creative, and fast-paced Expectations from the company were clear: to produce platform-appropriate content that aligns with brand voice and engages target audiences. I was given real responsibilities — from voiceovers and campaign ideas to blog writing.

**Academic courses relevant to the project :** Yes

**PS-II STATION: DIVGI TORQ TRANSFER SYSTEMS LTD. SHIRWAL,PUNE ,SATARA**

**FACULTY NAME: RAVI SHRIKRISHNA REOSEKAR**

**STUDENT NAME: ADWAITH K (2023H1410108H)**

Student Write-up

**PS-II Project Title:** Testing and validation of transmissions and transfer cases

**Short Summary of work done during PS-II :** Involved in assembly process of various test setup in software as well as in the test stand. Performed Durability test, Efficiency test, Drag torque loss test for Z101MT Transfer case and transmissions. Helped create models and drawings for fixture plate and other test components.

**Tool used (Development tools - H/w, S/w) :** Siemens NX

**Objectives of the project :** Conduct a comprehensive study on testing and validation of transmissions and transfer cases. Use Siemens NX for creating models and drawings of test components.

**Major Learning Outcomes :** Understood the steps involved in testing of transmissions and transfer cases.

Received training in Siemens NX to create models and drawings. Learnt the importance of checking runouts, shaft alignment etc.

**Details of Papers/patents : NIL**

**Brief Description of working environment, expectations from the company :** Comfortable yet competitive work environment.

Project leads were extremely patient and supportive. They cleared any doubts during work. Contacted the mentor weekly for updates on the work done.

Required completion of daily tasks.

**Academic courses relevant to the project :** Theory of Machines, Computer Aided Analysis and Design

**PS-II STATION : DIVGI TORQTRANSFER SYSTEMS PVT. LTD. SIRSI, KARNATAKA**

**FACULTY NAME: RAVI SHRIKRISHNA REOSEKAR .**

**STUDENT NAME: MANISH LALCHANDANI (2023H1410107P)**

Student Write-up

**PS-II Project Title:** Sequential Manufacturing Process Development for Automobile Parts Using CAD

**Short Summary of work done during PS-II :** WE DEVELOP ENGINEERING DRAWINGS

**Tool used (Development tools - H/w, S/w) :** SIEMENS NX

**Objectives of the project :** TO DEVELOP ENGINEERING DRAWINGS FOR VARIOUS PARTS

**Major Learning Outcomes :** INDUSTRY SOP, ENGG DRAWING

**Details of Papers/patents :** NONE

**Brief Description of working environment, expectations from the company :** WORKING ENVIRONMENT IS FINE , HR IS RESPONSIBLE AND TAKING CARE OF THE WORK CULTURE

**Academic courses relevant to the project :** CAD

**PS-II STATION :** DRUVA DATA SOLUTIONS PVT. LTD , PUNE

**FACULTY NAME:** CHETANA ANOOP GAVANKAR .

**STUDENT NAME:** ISHA RUNTHALA (2023H1030067G)

Student Write-up

**PS-II Project Title:** API/Database Enhancement & Device Management

**Short Summary of work done during PS-II :** During my Practice School-II internship at Druva Data Solutions Pvt. Ltd., Pune, I contributed to the Device Management project, which focuses on secure, scalable lifecycle management of Druva agents across various workloads (e.g., inSync, Phoenix). I worked on extending the API and database schema, adding fields like deletion status and storage capacity, ensuring secure access, validation, and smooth integration across data, business, and transport layers. Additionally, I actively participated in the development and integration of a modular, microservice-based system handling device activation, authentication, upgrades, and plugin management. I implemented Azure Blob and Oracle PBS support, enabling cloud-based log storage and plugin functionality. I contributed to real-time communication mechanisms using WebSockets and helped develop the Notifier Gateway for device-service messaging. I also worked on improving system monitoring and observability using Coralogix, setting up multi-regional dashboards, alerts, and log analytics for early anomaly detection. My role involved documenting escalation processes, API specifications, and system workflows, enhancing operational efficiency. This internship deepened my understanding of microservice architecture, secure API development, real-time systems, and cloud integrations, while also strengthening my skills in backend engineering, DevOps, and technical documentation

**Tool used (Development tools - H/w, S/w) :** Coralogix , Postman, Jira , Confluence, EzUi , GoLand IDE, MHC /AWS Cloud, LinkedIn Learning,

**Objectives of the project :** To design and implement a secure, scalable, and modular Device Management system for managing the lifecycle of agents across Druva's cloud data protection products.

**Major Learning Outcomes :** Understood and implemented microservice-based architecture. Gained hands-on experience in API development and integration.  
Learned database schema design, versioning, and migration. Integrated Azure Blob and Oracle PBS for cloud storage support.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The work environment here is very positive and inclusive. All team members — from junior staff to senior leadership including managers, architects, the CEO, CTO, and PMs — are approachable and supportive. There is no hierarchy in seating arrangements; everyone works together in a shared space.  
Employees are required to be in the office on three designated days each week (Monday, Tuesday, and Thursday). Remote work is permitted on the remaining days. The organization also promotes flexibility, allowing individuals to manage their work schedules effectively.  
Regular check-in meetings are held every five weeks with the manager to discuss any challenges faced, gather feedback, and explore areas for improvement.

**Academic courses relevant to the project :** Cloud Computing , Computer Networks , Operating System , Database Management System

**PS-II STATION : E6DATA,BENGALURU**

**FACULTY NAME: SRINATH R.NAIDU .**

**STUDENT NAME: YASH RAJESH BHISIKAR (2021A7PS0483G)**

Student Write-up

**PS-II Project Title: N/A**

**Short Summary of work done during PS-II :** I worked on a wide range of stuff, from fixing bugs to implementing sql functions, to also taking up larger scale code-changes around memory optimizations

**Tool used (Development tools - H/w, S/w) :** Java, IntelliJ Idea, Jprofiler, AWS

**Objectives of the project :** Fix bugs, improve sql coverage, implement memory optimizations

**Major Learning Outcomes :** Using Java for production codebases, analyzing and debugging slowdowns and bugs, understanding internals of a sql engine

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Flexible policy for WFH, amazing bunch of people and very helpful, given all the tools and equipment, expected to deliver regular updates in standups and reach out for help in case of blockers.

**Academic courses relevant to the project :** DBMS, OS, CompArch, CN

**PS-II STATION : EIGHTFOLD AI INDIA PVT LTD, BENGALURU**

**FACULTY NAME:** FEBIN A VAHAB .

**STUDENT NAME:** KUMARASAMY CHELLIAH (2021A7PS0096H)

Student Write-up

**PS-II Project Title:** Development of Enhanced Approval Workflows

**Short Summary of work done during PS-II :** We revamped the existing backend and integrated new features to support parallel approves and usrr groups

**Tool used (Development tools - H/w, S/w) :** VS Code, Cursor, EC2

**Objectives of the project :** Revamp the backend and develop enhanced approval workflows

**Major Learning Outcomes :** Backend, frontend, SOLR

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The work environment is supportive.

**Academic courses relevant to the project :** DBMS, OOPS, SE

**PS-II STATION : EIGHTFOLD AI INDIA PVT LTD, BENGALURU**

**FACULTY NAME:** FEBIN A VAHAB .

**STUDENT NAME:** VASHISTH CHOUDHARI (2021A7PS1989H)

Student Write-up

**PS-II Project Title:** Development of internal CI/CD tools, dashboards, and AI Agents



**Short Summary of work done during PS-II :** Worked on improvement of CI/CD cycle, tools for developers to identify bugs in bots, worked on python upgrades, replacing deprecated code, and deploying on all instances. Built AI agents for different company functions such as HR, sales, and marketing for improvement of their efficiency and reducing menial tasks.

**Tool used (Development tools - H/w, S/w) :** Python, EC2, Ansible, n8n, cursor

**Objectives of the project :** To enhance developer efficiency and to make it easier for other company functions to save time and improve work quality

**Major Learning Outcomes :** Internal tool development, enhancement of developer lifecycles, AWS, ansible, n8n

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The company environment is quite wholesome with most people being ready to help and down to earth. It's easy to talk to people, resolve blockers, and get things done. The company culture is quite nice, however the work life balance is quite strained with extra hours being required regularly and even weekends if required.

**Academic courses relevant to the project :** OOP, DBS, CC

**PS-II STATION : EIGHTFOLD AI INDIA PVT. LTD.,NOIDA ,NOIDA**

**FACULTY NAME: FEBIN A VAHAB .**

**STUDENT NAME: MEET CHIRAG PATEL (2021A7PS2692H)**

Student Write-up

**PS-II Project Title:** Customer Enhancement Requests

**Short Summary of work done during PS-II :** I worked on multiple projects during PS - II that helped solve customer aspects. Most of the aspects were focused on enhancing or adding new features to the existing product. It included working with integrating 3rd party APIs and processing bulk tasks asynchronously using a queue.

**Tool used (Development tools - H/w, S/w) :** Cursor

**Objectives of the project :** The projects that I worked on aimed to solve multiple opportunities faced by the customers.

**Major Learning Outcomes :** I learned key software engineering principles that helped me write code that was scalable. I also got a deeper understanding of React typescript and Python Flask.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was encouraging that helped me learn and grow as an individual and also deliver all the projects within the deadlines.

**Academic courses relevant to the project :** Object Oriented Programming, Database Management Systems, Software Engineering

**PS-II STATION : ELECTRONIC ARTS, INDIA ,HYDERABAD**

**FACULTY NAME: JYOTSANA GROVER**

**STUDENT NAME: TANISH GOTTIMUKKALA (2021A7PS0047H)**

Student Write-up

**PS-II Project Title:** Building a Web service to mock and test microservices

**Short Summary of work done during PS-II :** Understanding the existing product architecture and its composite microservices. Designing the mocking web service. Understanding requirements. Development timeline estimation. Building the application. Deployment and stabilization.

**Tool used (Development tools - H/w, S/w) :** IntelliJ, vscode, copilot, gitlab, git, AWS

**Objectives of the project :** Build an application to mock and test the product and integrate the service with ci/cd workflows

**Major Learning Outcomes :** Backend using Java and scala using actor systems

Gitlab ci/cd

AWS kubernetes

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Hybrid work culture- 3 days in office and 2 days' work from home. Flexible timelines- developers are given freedom for due estimation of deliverables . Evening meetings with NA team twice a week.

**Academic courses relevant to the project :** OOPS OS

DBMS

**PS-II STATION : ELECTRONIC ARTS, INDIA ,HYDERABAD**

**FACULTY NAME:** JYOTSANA GROVER

**STUDENT NAME:** GNANA PRANEETH NERIYANURI (2021A7PS0263H)

Student Write-up

**PS-II Project Title:** Automation of Email workflow

**Short Summary of work done during PS-II :** Had to create Microservices which had Agentic workflow embedded in it to automate the email creation workflow, leveraged the Crew ai framework and fastAPI and GRpc framework

**Tool used (Development tools - H/w, S/w) :** S/W- CrewAI, Angular, Python, GRPC, FastAPI

**Objectives of the project :** Create an AI agentic workflow to automate the Email generation

**Major Learning Outcomes :** Integration of Agentic Workflows, Microservices

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Working environment was pretty relaxed and balanced and easy to approach the mentors, expectations were to complete the assigned project

**Academic courses relevant to the project :** NLP

**PS-II STATION : ELECTRONIC ARTS, INDIA ,HYDERABAD**

**FACULTY NAME:** JYOTSANA GROVER

**STUDENT NAME:** VANSH RASTOGI (2021A7PS0407H)

Student Write-up

**PS-II Project Title:** Migration of streams

**Short Summary of work done during PS-II :** I was part of the EADP Social team's groups squad. First I worked on creating a Ticket Management System which was complete hands on how to create a Java Springboot Application. My main project was to migrate streams from PEP to Benthos PEP for the groups squad using input message is from pin\_groups topic and we make S3 and identity calls and we form the Benthos Pin message then for the output it is sent to another kafka topic and the PIN River live viewer.

**Tool used (Development tools - H/w, S/w) :** IntelliJ,Java,Kafka,Benthos,Kubernetes,ArgoCd

**Objectives of the project :** Migration of streams from PIN Event Processor to Benthos Pin Event Processor using Kafka Topic

**Major Learning Outcomes :** Learnt how to write the mapping using Benthos Code.

Learnt how to publish message using Kafka topic and how are we calling s3 to fetch title Id and tele type and identity calls to fetch the underage flag.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was pretty relaxed and balanced, healthy and professional. Everyone in the company was so approachable and helpful which made my work so easy and always kept me motivated to work towards achieving my goal. There was no daily tasks for my project so the expectation of the company was to complete the project by the end of my internship . There were daily updates which was based on what I did and if there were any blockers.

**Academic courses relevant to the project :** Object Oriented Programming, Data Base Management System

**PS-II STATION : ELECTRONIC ARTS, INDIA ,HYDERABAD**

**FACULTY NAME: JYOTSANA GROVER**

**STUDENT NAME: NISCHITH P (2021A7PS3220H)**

Student Write-up

**PS-II Project Title:** Data pipeline modernization optimization

**Short Summary of work done during PS-II :** During my internship, I contributed to three major projects: ETL Job Migration to AWS EMR and EMR Cluster Cost Optimization and Hive UDF Validation Framework. I successfully migrated 19 ETL jobs from a Hadoop-based framework to an EMR-AWS stack orchestrated by Airflow, ensuring smooth transitions with no impact on dependent systems. In the cost optimization initiative, I identified high-cost jobs, analyzed their cluster metrics using Grafana, and implemented configuration, Spark property, and query-level optimizations deployed to production, resulting in substantial cost savings. I also contributed to a testing framework (DAG) that verifies the correctness of Hive UDF behavior under new EMR versions, ensuring compatibility and reliability.

**Tool used (Development tools - H/w, S/w) :** AWS EMR, SQL, Hadoop, Oozie, Apache Spark, Hive, Apache Airflow, Gitlab, Jumphost, Grafana, Prometheus

**Objectives of the project :** Job Migration between different tech stacks, AWS EMR cost optimization, Regression Suite to test compatibility of Hive UDFs

**Major Learning Outcomes :** CI/ CD and ETL job pipelines, modern Big Data architectures, advanced SQL queries and query optimization, AWS services like EMR, S3, Athena, DynamoDB and Opportunity-Solving and Debugging

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Work environment is great as it offers flexible working hour and hybrid mode. The team I was interning in was amazing and helpful. I mainly worked with my mentor contributing to the ongoing projects with a direct impact on production rather than working on an independent dedicated project which I really like about my internship experience.

**Academic courses relevant to the project :** DBMS, Optimization

**PS-II STATION : ELI LILLY, BENGALURU**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: PRAVEEN CHOUDHARY D (2023H1460207P)**

Student Write-up

**PS-II Project Title:** Market Research-Primary & Secondary Studies

**Short Summary of work done during PS-II :** Understanding the overview of Market research, types of Market research, methodology followed.

**Tool used (Development tools - H/w, S/w) :** Excel, PowerPoint, other tools are confidential information

**Objectives of the project :** To understand overview of Market research

**Major Learning Outcomes :** Working of Market research

**Details of Papers/patents :** Several projects (Confidential Information)& no papers

**Brief Description of working environment, expectations from the company :** Culture matters to the company.. has few core values which are very well followed. Overall brilliant experience

**Academic courses relevant to the project :** Pharmaceutical administration & management, clinical research.

**PS-II STATION : ERNST & YOUNG LLP, GURUGRAM**

**FACULTY NAME:** GAURAV NAGPAL .

**STUDENT NAME:** VED DESHMUKH (2020B3A41183H)

Student Write-up

**PS-II Project Title:** LLM Automation

**Short Summary of work done during PS-II :** Projects involved leveraging LLM models to automate processes, which were mostly internal applications for the company's business unit

**Tool used (Development tools - H/w, S/w) :** Python, Azure, PostmanAPI etc

**Objectives of the project :** To integrate LLM processes to assist with the operation of internal applications

**Major Learning Outcomes :** Gained insights into the world of automation of processes using LLMs

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Should be diligent with the work, focus on learning the processes followed by big organizations.

**Academic courses relevant to the project :** Yes

**PS-II STATION : ERP-BITS, HYDERABAD**

**FACULTY NAME:** ANJANI SRIKANTH KOKA .

**STUDENT NAME:** PRAVEEN SINGH . (2021B5PS2064P)

Student Write-up

**PS-II Project Title:** Option 1: "ERP-Based Process Optimization and Workflow Documentation for Academic Operations" Option 2: "Implementation Support and Testing of ERP Systems in Academic and Examination Processes" Option 3: "Digital Process Mapping and ERP Integration.

**Short Summary of work done during PS-II :** During my Practice School-II (PS-II) at BITS Pilani, I was assigned to the ERP division, where I contributed to multiple key initiatives aimed at improving internal operations and academic workflows. My primary responsibilities included process documentation, flowchart design, and system testing support. I actively participated in streamlining the PhD thesis submission process by mapping out end-to-end workflows and aligning them with ERP functionalities for better tracking and transparency.

**Tool used (Development tools - H/w, S/w) :** ERP—For understanding and supporting the ERP system functionalities Microsoft Excel & Google Sheets – For detailed process documentation, data tracking, and analysis. MS PowerPoint / Google Slides – For preparing and presenting reports and reviews.

**Objectives of the project :** To streamline and document academic and administrative processes through ERP integration. To support the structured handling and tracking of PhD thesis submissions via ERP workflows. To assist in the testing and validation of the WILP Division's Examination App for smooth user experience.

**Major Learning Outcomes :** Gained hands-on experience with ERP systems and understood their role in academic and administrative process automation.

Developed skills in workflow design, process mapping, and documentation using tools like Lucidchart and Excel.

Understood the import

**Details of Papers/patents :** No papers or patents were published during the PS-II period.

**Brief Description of working environment, expectations from the company :** The working environment during my PS-II at the ERP Division, BITS Pilani – Hyderabad Campus, was structured, collaborative, and academically inclined. The team maintained a balance between professional expectations and a supportive atmosphere, making it conducive for learning and contribution. I had the opportunity to interact regularly with faculty coordinators, ERP developers, and administrative staff, which gave me exposure to both technical and process-oriented aspects of institutional management systems. From the company, I expected to gain exposure to real-world ERP implementations, understand the digital transformation of academic processes, and develop practical skills in documentation, process design, and testing.

**Academic courses relevant to the project :** 1. Software Engineering – Helped understand system design, software development life cycles, and documentation.

2. Database Systems – Provided knowledge of data management, SQL, and backend structures relevant to ERP platforms.

3. Operating Systems –

## PS-II STATION : ERP-BITS, HYDERABAD

FACULTY NAME: ANJANI SRIKANTH KOKA .

STUDENT NAME: MS. JAYSHREE . (2021D2PS2075P)

### Student Write-up

**PS-II Project Title:** Integrating ERP Systems with Academic and Administrative Workflows across BITS Campuses

**Short Summary of work done during PS-II :** During my Practice School-II at the ERP Department, BITS Pilani Hyderabad, I worked on integrating PhD thesis documentation and budgeting processes into the institute's ERP system. This involved creating structured workflows that facilitated draft submission, revision tracking, title approval, and final thesis submission across all four campuses. I also contributed to the development of budget planning modules, enabling better cost estimation and tracking. My responsibilities included creating flowcharts for various academic and administrative workflows, uploading and verifying departmental and lab content, and refining document formats for consistency. I worked closely with mentors and project managers to ensure clarity, efficiency, and scalability of the system. Additionally, I curated and uploaded patent records and contributed to portal content for grants and facilities. This experience offered me real-world exposure to system implementation, user coordination, and the impact of digital transformation on academic institutions.

**Tool used (Development tools - H/w, S/w) :** Software: BITS ERP system, Microsoft Excel, PowerPoint, BITS Wiki, Basic HTML Demandingware: Standard office desktop systems

**Objectives of the project :** The project aimed to integrate PhD thesis tracking and budgeting into the ERP system while mapping and streamlining academic and administrative workflows for greater transparency and efficiency. It also focused on enhancing document management, standardizing multi-campus procedures, and supporting informed decision-making through accurate ERP-generated data.

**Major Learning Outcomes :** Gained hands-on experience in ERP-based academic and administrative process integration.

Learned to design and implement standardized workflows for multi-campus coordination.

**Details of Papers/patents :** Contributed to the structuring and uploading of existing patent data No new patent filed during PS-II tenure.

**Brief Description of working environment, expectations from the company :** The ERP Department provided a professional, collaborative, and learning-oriented environment. Mentors were highly approachable and guided us through project goals while encouraging independent thinking. The team fostered a culture of ownership and innovation, where students were treated as responsible contributors to actual institutional improvements.



Expectations included meeting deadlines, maintaining consistency in documentation, actively participating in review meetings, and ensuring the accuracy and completeness of uploaded data. We were expected to understand the institutional structure deeply to create meaningful workflows and contribute toward efficient digital systems across campuses. The exposure to real data, open communication channels, and structured weekly targets made the experience very enriching.

**Academic courses relevant to the project :**

Principles of Management  
Business Analysis & Valuation  
Essentials of Strategic Management  
Development Economics  
Excel for Beginners  
Security Analytics & Portfolio Management  
Getting Started with ChatGPT-4  
Creating & Leading Entrepreneurial Organization

**PS-II STATION : ESRI INDIA TECHNOLOGIES PVT.LTD., ,NOIDA**

**FACULTY NAME: NEHA VINAYAK .**

**STUDENT NAME: PULKIT TYAGI (2023H1540853P)**

Student Write-up

**PS-II Project Title:** Location Analytics Market Positioning for Building Construction Materials: Focus Industry Steel

**Short Summary of work done during PS-II :** I researched on steel industry and how ArcGIS software be pitched and used by the companies in steel industry. I also generated 8 leads for software sales in my internship in Renewable energy and BFSI. I made Pitching decks, competition battle cards, company research decks, reports and cold calls and mails.,

**Tool used (Development tools - H/w, S/w) :** Excel, PPT, Python

**Objectives of the project :** Analyzing patterns and trends of consumer consumption across markets for BCM and thereby strategizing go to Market

**Major Learning Outcomes :** Research, Analytics and Technical skills

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** I enhanced my ability to communicate ideas clearly and professionally. The exposure to practical scenarios helped me become more confident and solution-oriented.

**Academic courses relevant to the project :** Marketing Research, Analytics, Excel, Strategy Management

**PS-II STATION : EUREKA FORBES LTD - BENGALURU**

**FACULTY NAME:** JYOTSANA GROVER

**STUDENT NAME:** ARYAN VATS (2020B2A11961G)

Student Write-up

**PS-II Project Title:** Data Science

**Short Summary of work done during PS-II :** During my internship at Eureka Forbes, I worked on two key opportunity statements: IoT device data analysis and customer service analytics, with the objective of improving product performance and enhancing customer satisfaction. For the IoT analytics project, I analyzed real-time and historical sensor data from thousands of installed water purifiers. My responsibilities included cleaning and preprocessing large volumes of time-series data, detecting anomalies in device behavior (such as irregular UV lamp activity or membrane failure), and identifying early warning signals for potential breakdowns. This enabled the company to design predictive maintenance strategies, thereby reducing service costs and increasing customer satisfaction. In the customer service analytics module, I analyzed call center and field service records to understand customer pain points and service trends. By segmenting customers based on service history, sentiment, and aspect recurrence, I developed dashboards and generated insights that helped prioritize high-risk complaints and optimize technician allocation.

**Tool used (Development tools - H/w, S/w) :** Python, Spark, SQL, PowerBI, Databricks, Azure

**Objectives of the project :** To analyse and build dashboard

**Major Learning Outcomes :** Cross functional team collaboration, Data Analysis, Communication

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** The working environment at Eureka Forbes was generally neutral and flexible.

**Academic courses relevant to the project :** Python, SQL, PowerBI

**PS-II STATION : EUREKA FORBES LTD - MUMBAI ,MUMBAI**

**FACULTY NAME: JYOTSANA GROVER**

**STUDENT NAME: AKSHAT SHARMA (2020B5A42373H)**

Student Write-up

**PS-II Project Title:** Incentive dashboard analysis, policy chatbot

**Short Summary of work done during PS-II :** During my PS-II at Eureka Forbes, I worked on three key data-driven projects aimed at enhancing HR operational efficiency: a GenAI-powered HR Chatbot, a Payroll Scorecard Dashboard, and a Sales Incentive Prediction Tool. I began with the development of an AI-based chatbot to address employee policy queries. Initially using RASA, I transitioned to a more scalable Retrieval-Augmented Generation (RAG) framework using LangChain and LlamaIndex, enabling intelligent document-based responses. The chatbot was tested with over 30 HR queries, significantly reducing manual intervention. Next, I created a fully functional Payroll Scorecard using Microsoft Excel. The dashboard featured dynamic filters by region and month, and used INDEX-MATCH logic to display employee-level salary details without relying on helper columns. This helped HR leadership monitor payroll metrics efficiently and export reports as needed. Lastly, I developed a Sales Incentive Calculation Tool using Python. The tool forecasted upcoming incentives using exponential smoothing and included logic for bucket classification and penalty adjustments. The final model was integrated into a Power BI dashboard for real-time visualization and reporting. Throughout the internship, I gained hands-on experience with Python, Power BI, Excel, and GenAI frameworks, while also learning how to balance technical delivery with business expectations. My work was aligned with improving decision-making, automation, and insight generation across departments.

**Tool used (Development tools - H/w, S/w) :** Power bi, Excel, Lamma

**Objectives of the project :** Incentive Dashboards, HR policy chatbot,

**Major Learning Outcomes :** Data Visualization with Power BI:

Developed interactive dashboards that included KPI tracking, trend analysis, and dynamic slicers to support real-time decision-making.

Business-Driven Opportunity Solving:

Understood how to translate HR and sales department

**Details of Papers/patents :**

**Brief Description of working environment, expectations from the company :** work environment is pretty good.

**Academic courses relevant to the project :** yes

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: NIKHIL AGARWAL (2020B2A71611P)**

Student Write-up

**PS-II Project Title:** 1. Search retraining platform - Thunder integration 2. Airflow DAG Dependency Orchestrator

**Short Summary of work done during PS-II :** I worked on building and maintaining data generation services that power machine learning retraining and recommendation pipelines. A key part of my contribution was integrating these services with Thunder, Flipkart's internal metrics dashboard. I designed structured metric outputs capturing key indicators such as data volume, processing latency, and DAG status. These metrics were pushed via REST APIs, enabling real-time monitoring and visibility. This integration allowed teams to filter and visualize pipeline health through Thunder, improving observability and helping debug production aspects more effectively. In addition, I developed a custom retry manager DAG in Apache Airflow to improve reliability across a network of interdependent pipelines. The process was particularly challenging as the pipelines often relied on data from upstream services or other teams, which could be delayed. If data dependencies weren't met on time, manual retries were previously required. To automate this process, the retry manager DAG queried Airflow's metadata database to identify failed or skipped DAG runs from the past hour, checked the status of their dependencies, and automatically retried the failed runs only if the dependencies had successfully completed. This significantly streamlined the retry process and reduced manual intervention.

**Tool used (Development tools - H/w, S/w) :** IntelliJ, PyCharm, Postman, Airflow, Github, GCP

**Objectives of the project :** 1. Search retraining platform - Thunder Integration: To generate structured data for ML pipelines and integrate with Thunder for real-time metric tracking and improved observability. 2. Airflow DAG Dependency Orchestrator: To automate DAG retries by checking dependency status, reducing manual effort caused by upstream delays.

**Major Learning Outcomes :** Java, Python, Scala, Apache Spark, Apache Airflow, GCP

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment of the company was excellent , Entire team was very supportive and patient during the initial phase of the internship , which encouraged me to learn things very quickly and start contributing in the assigned tasks. they were clear on the outcomes they were expecting for an intern. The team members and the company culture were very inclusive in nature. The whole workspace was supportive towards clarifying doubts. The mentor assigned was open for doubts all the time.

**Academic courses relevant to the project :** Object Oriented Programming , Data Structures and Algorithms , Database Management , Operating Systems

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME:** VINEET KUMAR GARG .

**STUDENT NAME:** KUNAL BANSAL (2020B2A72456H)

Student Write-up

**PS-II Project Title:** MySQL Migration, Rate Limiting, API E2E

**Short Summary of work done during PS-II :** During my internship at Flipkart under the Platforms CSE unit, I worked on many major backend initiatives. For example, implementing and designing rate limiting solution from scratch, MySQL migration for my team and our owned services from version 5.7 to 8.x, contributing extensively to the CMS project by writing comprehensive unit and integration tests, achieving over 90% test coverage. I also integrated SONAR for quality enforcement and built new HBase-based APIs for internal clients. Apart from these there were continuous development tasks that were assigned which were related to on call aspects. I regularly collaborated with teammates, providing support in debugging, testing, and reviewing code, which helped streamline our development workflow.

**Tool used (Development tools - H/w, S/w) :** IDE, Documentation, Postman, jwt.io, SequelAce

**Objectives of the project :** POC for MySQL Migration & E2E API creation, Session Management, Improve system scalability, code quality, and authentication

**Major Learning Outcomes :** Gained practical experience in backend development, database migration, secure authentication and rate limiting design, test-driven development, and CI/CD integration. Developed skills in handling large-scale systems using Java, Kubernetes, MySQL.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Interns were expected to take responsibility and own projects end-to-end, write production-level code, follow CI/CD practices, ensure testing and contribute meaningfully.

We were treated as a team member and were trained to contribute in deployments, sprint planning, and on-call aspect resolutions while focusing on peer learning and cross team collaboration.

This internship experience shaped my understanding of large-scale distributed systems, agile methodologies, maintainability and backend service reliability.

**Academic courses relevant to the project :** OOPS, DSA, DBMS

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: ASHRAY KASHYAP (2020B3A70494G)**

Student Write-up

**PS-II Project Title:** Optimizing Wallet systems

**Short Summary of work done during PS-II :** During my internship at Flipkart with the Ads Ledger team, I worked on optimizing the wallet system to enhance financial accuracy, scalability, and operational efficiency. My key contributions included designing an automated account onboarding pipeline that replaced manual workflows, and developing a fault-tolerant transaction retry framework with idempotent service layers to resolve blocked fund aspects. I led the migration of wallet databases to a scalable, optimized infrastructure using table compression, sticky sessions, and topology tuning—ensuring zero-downtime cutover. I also implemented a distributed transaction ID generation system that ensured uniqueness and traceability across services. In parallel, I designed end-to-end regression and integration test suites across critical systems. On the operational front, I configured scalable log rotation on Dataproc VMs to avoid disk failures, handled production on-call duties, deployed hotfixes, and debugged settlement service pipelines to ensure audit-compliant financial reporting.

**Tool used (Development tools - H/w, S/w) :** Java, python, MySQL, kafka, kubernetes, postman, GitHub, maven, dropwizard.

**Objectives of the project :** To build robust and consistent wallet transaction systems

**Major Learning Outcomes :**

1. Learned how to design and implement high-throughput, production-grade systems
2. Gained deep experience in handling financial transactions safely and deterministically
3. Learned how to manage and debug live production systems during on-call rotations

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Flipkart was dynamic, collaborative, and highly ownership-driven. The Ads Ledger team fostered a culture of accountability, where engineers were expected to deliver scalable, reliable solutions for business-critical financial systems. From day one, interns were treated as full-fledged contributors, involved in real production systems and trusted with impactful responsibilities.

Expectations from Flipkart were moderate in terms of technical depth, opportunity-solving ability, and communication. I was expected to understand complex systems but was given adequate time as well, write clean and maintainable code, document my work thoroughly, and

participate actively in code reviews and team discussions. Regular sync-ups, mentorship from experienced engineers, and access to internal documentation helped accelerate my learning.

**Academic courses relevant to the project :** OOP, SDPD, DBMS, OS, CN.

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME:** VINEET KUMAR GARG .

**STUDENT NAME:** VAIDYA SAAHIR JITENDRA (2020B3A71142G)

Student Write-up

**PS-II Project Title:** Rate Limiter and Other projects

**Short Summary of work done during PS-II :** Designed a Rate Limiter as a maven module for all services on my department. The Rate Limiter was aimed at preventing starvation aspects among clients and had a latency less than 1 ms. Rate Limit values were at API x clientId level per k8 pod. It was made to facilitate real time changes to the rate limit values to prevent data loss due to redeployment by using a signal to receive update sin the limit values. The Rate limit was applied suing token bucket algorithm and the latency of reaching the algorithm after extracting all necessary parameters was O(1) on average which allowed it have a < 1ms processing time, putting no burden on the server, which in turn was achieved by caching. The Caching algorithm was space bounded due to input parameters therefore took ~54 bytes of storage per cache entry.

**Tool used (Development tools - H/w, S/w) :** Java, Nginx

**Objectives of the project :** Create a rate limiter for internal services of my department and other bug fixes and implementations

**Major Learning Outcomes :** How to safeguard services from excess requests in high volume, optimally handling multiple threads on the server which process requests

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Co-workers are very helpful and always gave me guidance whenever I needed it. In particular the upper management - Senior Engineering, Manager, Tech Lead event the Director were very approachable if I had any questions for them.

**Academic courses relevant to the project :** Object oriented programming, Operating Systems, Computer Networks, Database management

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME:** VINEET KUMAR GARG .

**STUDENT NAME:** GUDEPU RAJESWARI ANANYA . (2021A3PS2642P)

Student Write-up

**PS-II Project Title:** Leveraging Generative AI in the Software Development Life Cycle and related areas

**Short Summary of work done during PS-II :** I focused on integrating Generative AI into the Software Development Life Cycle (SDLC). Key contributions include AI-driven code and pull request review agents, dynamic documentation generation, and a proof-of-concept for API metric analysis. Tools like Model Context Protocol (MCP) servers were used to enhance LLM context by connecting to services such as GitHub and Prometheus. The project also involved creating setup guides and prompting strategies to support AI adoption. These efforts improved developer productivity, automated key tasks, and promoted the use of AI tools within the organization.

**Tool used (Development tools - H/w, S/w) :** Java, Python, Cursor AI, Git, Prometheus

**Objectives of the project :** To enable developers to leverage Gen AI tools in their workflow and extract maximum productivity.

**Major Learning Outcomes :** Functioning of AI tools, LLMs, AI enabled IDEs, MCP Servers, Agentic AI workflows

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The work environment is very comfortable, goals are self-paced. Opportunities to interact with peers, higher management are aplenty and very insightful. Reaching out in case of doubts is encouraged and people are more than willing to help. Assigned real-time PoCs and projects, so your contribution will have an impact on the organization. As for the company's expectation, make sure you're giving your best and contributing in a meaningful way, the company values risk-taking and the ability to speak your mind.

**Academic courses relevant to the project : NLP**



**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: SHRESTHA SAXENA (2021A3PS2980H)**

Student Write-up

**PS-II Project Title:** Gen AI for Developer Productivity

**Short Summary of work done during PS-II :** During my PS-II internship at Flipkart under the MART (Market and Retail Team), I worked on a cutting-edge project that explored the integration of Agentic AI and GitHub Copilot to enhance and automate various phases of the Software Development Life Cycle (SDLC). The primary focus was on designing a pipeline of AI agents that could perform tasks such as PRD (Product Requirements Document) to code generation, reverse generation from code to PRD, automated code reviews, test case generation, and SDLC stage analysis. I contributed to building a system that utilized multiple LLMs like Claude, LLaMA, and Copilot, with orchestrated APIs to automate the bidirectional conversion between business requirements and implementation-level code. My role involved designing the architectural flow, developing backend modules, analyzing repositories, enabling agent-driven PR and test reviews, and ensuring seamless integration with internal GitHub workflows. I worked on setting up a local MCP server and developed support tools to run these agents at scale. Additionally, I contributed to developing internal documentation for APIs, onboarding guides, and visual decks to explain the project. Another key output was a demo system where code and PRDs were continuously synced and updated based on version control. Through this project, I also conducted a comparative study of multiple open-source and proprietary LLMs, evaluated model limitations with respect to context windows, and implemented prompting best practices. Overall, my work contributed to automating key manual tasks in development, thus improving engineering efficiency and laying the foundation for intelligent DevOps systems.

**Tool used (Development tools - H/w, S/w) :** Cursor AI, Windsurf, VScode

**Objectives of the project :** I worked on a highly exploratory and research-intensive project that aimed to evaluate and demonstrate the potential of AI agents—particularly Agentic AI and tools like GitHub Copilot, Cursor AI, and Claude—in automating critical components of the Software Development Lifecycle (SDLC). The broader goal was to create intelligent agents capable of analyzing repositories, generating documentation such as PRDs, suggesting test cases, reviewing pull requests, and ensuring code quality.

**Major Learning Outcomes :** During my PS-II internship, I gained substantial exposure to the emerging field of Agentic AI and its applications in real-world developer workflows. I developed a deep understanding of how autonomous agents can collaborate to automate complex SDLC tasks

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** During my PS-II internship at Flipkart, I was embedded in the MART (Market and Retail Team), a fast-paced and innovation-driven business unit focused on building internal tools, seller platforms, and retail technology systems. The working environment was dynamic, collaborative, and intellectually stimulating. I was given the autonomy to explore complex opportunity statements while also receiving consistent mentorship and guidance from senior engineers and product managers.

From the outset, Flipkart set clear expectations centered around opportunity-solving, ownership, and delivering impactful outcomes. Interns were treated as responsible contributors, not passive observers. I was expected to understand the opportunity space, propose feasible solutions, and execute technical tasks independently, all while maintaining strong documentation and communication practices. Timely progress tracking, demos, and iteration based on feedback were essential parts of the workflow.

The engineering culture at Flipkart promotes experimentation and practical application of state-of-the-art technologies. I had access to internal tools, secure sandbox environments, and a rich codebase which enabled hands-on learning and productive experimentation. Cross-functional collaboration with AI research, product, and backend teams also broadened my understanding of real-world tech product development.

Importantly, there was a strong emphasis on learning and growth. Regular knowledge-sharing sessions, team standups, code reviews, and performance feedback helped me refine my engineering and research skills. The company expected me to take initiative, stay curious, and focus on delivering value through well-architected, scalable solutions. This balance of structure and flexibility made for a highly enriching and motivating internship experience.

**Academic courses relevant to the project :** AI and ML

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: VAMSI KRISHNA GATTUPALLI (2021A7PS0040H)**

Student Write-up

**PS-II Project Title:** Enhancements to Seller Support Systems

**Short Summary of work done during PS-II :** Focused on three core components: Krystal Framework enhancements, API Orchestrator improvements, and the SIA L0 Agent Proof-of- Concept. The objectives were to extend the existing mid-semester deliverables—namely, the static call graph visualization for Krystal and automated alerts in API Orchestrator—by integrating new features, improving coverage, and developing additional modules such as onboarding SOPs for the SIA L0 Agent.

**Tool used (Development tools - H/w, S/w) :** Dropwizard, Docker, Kubernetes, JUnit & Mockito, MySQL, Redis

**Objectives of the project :** Enhancements to Seller Support Systems (Auto Resolution System & MART API Orchestrator)

**Major Learning Outcomes :** Dropwizard, Docker, Kubernetes, JUnit & Mockito, MySQL, Redis, Inter-team communication, Time management, Opensource contributions, Stakeholder management

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The company's work environment is pretty good compared to the other industry standards. People mostly don't disturb you post 7PM or during weekends, unless during instances of production aspects. Expectations from the company are that we mostly finish the tasks before the deadlines.

**Academic courses relevant to the project :** DBMS, OOPS, Software Engineering

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME:** VINEET KUMAR GARG .

**STUDENT NAME:** POOJAN MEHTA (2021A7PS0093H)

Student Write-up

**PS-II Project Title:** Modernization and Optimization of Warehouse Management System (WMS) Services

**Short Summary of work done during PS-II :** During my internship at Flipkart Pvt Ltd, I had the opportunity to work on modernizing critical backend services within the Warehouse Management System (WMS) domain. My primary focus was on the migration of the Inter- Warehouse Transfer (IWIT) and Putaway services to a Domain-Driven Design (DDD) architecture. This involved requirement gathering, participating in high-level and low-level design discussions, and working closely with cross-functional teams to ensure seamless integration of backend services with the frontend via Figma-based mapping. I was responsible for developing RESTful APIs using a clean, modular codebase adhering to the three-tier architecture. I placed significant emphasis on testing, executing both unit and integration tests, and validating the system in production through User Acceptance Testing (UAT) with real warehouse data.

**Tool used (Development tools - H/w, S/w) :** IntelliJ, Github Copilot, Cursor AI, JIRA Confluence

**Objectives of the project :** To improve the efficiency of services used by Flipkart to manage and transfer inventory across warehouses

**Major Learning Outcomes :** Learnt about how end-to-end a project is developed. Right from planning, solutioning to the dev task and finally deployment to stage and production.

## **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Flipkart was dynamic, fast-paced, and highly collaborative. From day one, interns were treated as full-time contributors, with clear responsibilities and access to production-level systems. The culture encouraged ownership, where we were expected to take initiative, drive our own learning, and deliver high-quality code that could scale across Flipkart's massive operations. Regular sync-ups, design discussions, and code reviews ensured that we stayed aligned with business goals and engineering best practices.

Mentorship played a key role in our development—senior developers and managers were approachable, offered constant feedback, and guided us through complex design and debugging tasks. Despite the intensity, the environment remained supportive, with emphasis on learning and growth. Tools and frameworks used were modern and industry-standard, giving us hands-on experience with scalable architectures, CI/CD pipelines, and service monitoring in real-time.

**Academic courses relevant to the project :** DSA (Data Structures and Algorithms)

DBMS (Database Management Systems)

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME:** VINEET KUMAR GARG .

**STUDENT NAME:** ASEEM CHIB . (2021A7PS0466P)

Student Write-up

**PS-II Project Title:** SDE Internship

**Short Summary of work done during PS-II :** I worked in the SSI team of the CPG business unit. My team is responsible for maintaining the data platform that powers data analytics internally at Flipkart. I worked on several different tracks to ensure minimization of GCP based costs for the company. I was also involved in multiple feature requests and enhancements for our data platform called Plato. I also participated in proof-of-concept work to enhance Plato adoption.

**Tool used (Development tools - H/w, S/w) :** IntelliJ, GCP Console

**Objectives of the project :** -> To optimise GCP costs for the team -> To enhance functionalities and adoption of the inhouse data platform

**Major Learning Outcomes :** GCP, Backend Development, Java, BigQuery

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment was very professional and comfortable. All my expectations were met by Flipkart. I was onboarded with a carefully designed technical project based learning program. Post onboarding, I was introduced to my team and my mentors. I was in continuous touch with my manager to supply him with daily work and my plans for the future. The communication with the team was always transparent and fair.

**Academic courses relevant to the project :** Database Management (DBS)

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME:** VINEET KUMAR GARG .

**STUDENT NAME:** YASHWARDHAN SINGH . (2021A7PS2219P)

Student Write-up

**PS-II Project Title:** SDE Intern

**Short Summary of work done during PS-II :** Worked with the apps core team on improving the android app

**Tool used (Development tools - H/w, S/w) :** Android Studio

**Objectives of the project :** Improving Android App Vitals

**Major Learning Outcomes :** Android Development

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** Great and positive working environment

**Academic courses relevant to the project :** Yes

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT), BENGALURU**

**FACULTY NAME:** VINEET KUMAR GARG .

**STUDENT NAME:** LAKSHIT SETHI . (2021A7PS2434P)

Student Write-up

**PS-II Project Title:** Repository migration and refactoring

**Short Summary of work done during PS-II :** Extracted and created a standalone repo of a module from a mono repo. Created pipeline added sanity and sanitization checks. Created pipeline and refactored the standard repo to be optimized towards running the module

**Tool used (Development tools - H/w, S/w) :** Kubernetes,GitHub,postman,intellij Idea, Ci/CD pipelines

**Objectives of the project :** Creation and migration to a new specialized repo from a mono repo

**Major Learning Outcomes :** Learned to use professional tools such as kubernetes and postman, learned to work in maintaining a codebase in a professional environment.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Good working environment, everybody was very helpful.

There were JIRA boards and standup daily to give updates and ask for help from others if required.

Daily communication with mentor to provide updates or if there are any doubts

**Academic courses relevant to the project :** Yes

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: PRATIK PATIL (2021A7PS3111H)**

Student Write-up

**PS-II Project Title:** Deduplication

**Short Summary of work done during PS-II :** I worked on 1. Optimizing the flow of deduplication by recalibrating the thresholds, thus reducing the flow to manual agents. 2. A system to track the effectiveness of deduplication for customers. 3. Solution & POC for sellers bypassing the deduplication by changing the background of images.

**Tool used (Development tools - H/w, S/w) :** H/w: A100H GPUs, VMs, Macbook M3 Air S/w: IntelliJ IDEA, VS Code, Google Gemini, Python, Java, ChatGPT, Jupyter Notebook, Object Detection & Segmentation Models, Kubernetes, Sonar, Synk

**Objectives of the project :** The project aimed to remove duplicate products from Flipkart's database and also prevent seller from creating duplicate products to abuse the system.

**Major Learning Outcomes :** I learned about the team structure, operation guidelines, presentation, time management, task breakdown, work visibility., proper communication of requirements & results

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment at Flipkart is relaxed and balanced and positive. There are no office hours so you can work at the time you prefer. However, you're expected to deliver the work at the deadlines, and if not, then have a justifiable reason for it. The teammates are also very helpful and cooperative and help you out when needed.

**Academic courses relevant to the project :** Operating Systems, Machine Learning, Object Oriented Programming, DSA, Database Systems

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME:** VINEET KUMAR GARG .

**STUDENT NAME:** ANKUR LHILA . (2021AAPS0178P)

Student Write-up

**PS-II Project Title:** SDE Internship

**Short Summary of work done during PS-II :** During my internship, I gained hands-on experience in several key areas, contributing to both backend development and advanced AI/ML operations. My work involved developing FastAPI endpoints. These endpoints were crucial for enabling seamless data management, allowing users to add and update specific datasets directly from Google Sheets. This involved designing efficient data handling logic and ensuring robust API functionality. Furthermore, I was responsible for the local deployment of the DeepSeek model on a GPU. This task involved configuring the environment, optimizing the model for local demanding ware, and ensuring its operational readiness for various tasks. A major project undertaken was the implementation of an automated data extraction and review system. Leveraging Apache Airflow and Celery, I designed and deployed a robust pipeline to set up cron jobs. This system was engineered to automate the extraction of specific information from the internet and subsequently generate expert reviews for various products. A core focus of this project was optimizing performance through multiprocessing and implementing strategies to reduce data redundancy, ensuring efficient and reliable operation.

**Tool used (Development tools - H/w, S/w) :** Python, Airflow, celery, rancher, mongodb, mysql, aerospike, redis

**Objectives of the project :** Major Project: to create an end to end offline pipeline to fetch reviews given by experts for certain products from the internet

**Major Learning Outcomes :** Backend Engineer, Software Practices, Communication

**Details of Papers/patents :** No papers/ patents.

**Brief Description of working environment, expectations from the company :** The working environment at Flipkart was generally not overly hectic. However, when working on major projects with strict deadlines, timely delivery was crucial due to the high visibility of these initiatives. The company operated on a hybrid work policy, though during critical phases, especially towards the end when deployment was a priority, an in-office presence was expected.

**Academic courses relevant to the project :** Object Oriented Programming

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: VENKAT PRANAVA TEJA SAMAVEDAM (2021AAPS0593H)**

Student Write-up

**PS-II Project Title:** One-click Checkout Experience Enhancements for Flipkart Minutes

**Short Summary of work done during PS-II :** I contributed to enhancing the checkout experience on Flipkart Minutes by working on two major backend features. First, I developed and integrated a GST Widget that enables users to claim GST-compliant invoices directly from the cart page. This involved changes across multiple backend repositories, including service calls, database persistence, UI contract handling, and eligibility management. Second, I simplified the cart flow for Open Box Delivery (OBD) orders by removing restrictive logic, resulting in a smoother user experience for these deliveries. My work included building adapters, handling edge cases like address changes and mixed product eligibility, and performing extensive testing. These enhancements make the checkout experience more reliable and compliant for diverse use cases.

**Tool used (Development tools - H/w, S/w) :** Java, IntelliJ, Postman, Git, GitHub, Dropwizard, Kubernetes, Maven, Flow ( Flipkart's internal CI/CD), Jira

**Objectives of the project :** The main objective of this project was to enhance the cart and checkout flow for Flipkart Minutes by integrating features such as GST-compliant invoicing and Open Box Delivery (OBD) support. This involved building scalable backend services and improving reliability to ensure a smooth one-click checkout experience.



**Major Learning Outcomes :** I gained hands-on experience working on production-grade systems at scale. I learned to integrate new features across multiple backend layers, interact with databases, and ensure consistency and correctness across services. I also improved my understanding.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Flipkart was collaborative, fast-paced, and highly supportive. I was treated as a full-time engineer and was given ownership of impactful features. The team had a strong emphasis on code quality, scalability, and clean architecture. Regular sync-ups, design discussions, and thorough code reviews helped me grow technically. I had the freedom to propose solutions, experiment, and learn from senior engineers. The expectation was to deliver well-tested, production-grade code with a strong understanding of the user and business impact. Overall, the environment fostered both independence and mentorship, making it an excellent learning experience.

**Academic courses relevant to the project :** Object Oriented Programming, Database Systems, Operating Systems, Computer Networks

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT), BENGALURU**

**FACULTY NAME:** VINEET KUMAR GARG .

**STUDENT NAME:** YATHARTH NANDA (2021AAPS1291G)

Student Write-up

**PS-II Project Title:** PRICING AND PROMOTIONS SERVICES

**Short Summary of work done during PS-II :** During my PS-II internship at Flipkart, I focused on improving the robustness, observability, and developer efficiency of the Pricing and Promotions systems. My work involved integrating dynamic configuration buckets into core services to enable fine-grained control over offer logic without redeployments. I implemented JMX-based alerts on existing Apache Storm topologies to enhance system monitoring and quicker aspect response. Additionally, I developed a scripting tool to automate offer creation, streamlining testing workflows. I also designed and developed a new Storm bolt to enhance real-time data ingestion for Reward Engine offers. Under mentorship, I gained firsthand experience in distributed systems, real-time stream processing, and system architecture, which directly impacted millions of users by supporting scalable, flexible, and reliable pricing and promotion services.

**Tool used (Development tools - H/w, S/w) :** Jira (Project Management) , GitHub (Version Control) , IntelliJ IDEA (IDE for development) , SonarQube (Static Code Analysis) , Grafana

(Monitoring and Visualization) , Apache Storm (Real-time Stream Processing) , GitHub Copilot (AI-powered coding a

**Objectives of the project :** Contribute to existing development tracks in creating and manager offers for the Flipkart ecosystem and deliver a smooth and unique customer experience

**Major Learning Outcomes :** The internship enhanced understanding of backend service development, real-time data processing, and system observability. Key learnings include integrating dynamic configuration, implementing JMX alerts on Apache Storm topologies, developing automation s

**Details of Papers/patents :** No papers or patents were mentioned or developed during the internship.

**Brief Description of working environment, expectations from the company :** The working environment was dynamic and collaborative, with a focus on real-world opportunity solving in a fast-paced e-commerce setup. The team emphasized agile practices, including standups, sprint planning, and code reviews, fostering a culture of continuous improvement. The expectations from Flipkart included developing scalable, reliable backend services, deepening technical skills, and actively participating in projects that impact millions of users. Mentorship and peer collaboration were integral, promoting a learning culture where innovation and operational excellence were prized. The company provided a supportive environment for experimentation, learning, and growth, emphasizing quality and performance.

**Academic courses relevant to the project :** Data Structures and Algorithms

Software Architecture

Operating Systems

Object-Oriented Programming

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: ANANYA JAIN (2021AAPS2121H)**

Student Write-up

**PS-II Project Title:** Override Automation System and Search Relevance Engine

**Short Summary of work done during PS-II :** During my 6-month internship at Flipkart, I led two high-impact projects. The Override Automation System involved building a full-stack dashboard to automate query classification, reducing manual effort by 70%. The AI-Driven Search Relevance Engine combined Elasticsearch, Pinecone, and LLMs (LLAMA2-7B, GPT-4) to improve search

accuracy by 30%. I deployed these systems on AWS, optimized costs using spot instances, and integrated monitoring tools. My work streamlined operations, reduced latency, and provided actionable insights for the Search Semantics team.

**Tool used (Development tools - H/w, S/w) :** Frontend: Bootstrap 5, JavaScript, jQuery Backend: Django 4, Python 3.8, FastAPI Databases: MySQL, ElasticSearch, Pinecone Cloud: AWS EC2, GCP BigQuery AI/ML: Transformers, Triton Inference Server

**Objectives of the project :** Automate the classification of override-affected queries using data-driven metrics. Replace manual override workflows with a scalable backend powered by MySQL. Develop a user-friendly dashboard for internal QA and DevOps stakeholders. Improve search relevance using hybrid retrieval (rule-based and neural methods). Reduce human intervention by 70% and enhance conversion rates.

**Major Learning Outcomes :** 1) Gained expertise in full-stack development (Django, Bootstrap, JavaScript).

2) Learned to optimize cloud infrastructure (AWS EC2, S3) for cost efficiency.

3) Applied ML/AI techniques (LLM fine-tuning, vector search) in production.

**Details of Papers/patents :** N/A (Work focused on proprietary systems for Flipkart).

**Brief Description of working environment, expectations from the company :** Flipkart provided a collaborative and fast-paced environment with access to cutting-edge tools and mentorship. Expectations included ownership of projects, adherence to agile methodologies, and delivering scalable solutions. Working environment was really good, everyone is helpful and friendly.

**Academic courses relevant to the project :** Database Systems, Machine Learning, Data Structure & Algorithms

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: ADITHYASHAILENDER UMESH (2021AAPS2220H)**

Student Write-up

**PS-II Project Title:** Backend Development - Inventory Management

**Short Summary of work done during PS-II :** During my internship at Flipkart, I worked as a backend development intern within the Inventory Management team. I contributed to four key projects: enhancing shelf compatibility logic to block item placement during audits, integrating variance APIs for mismatch resolution into the inventory controller, building a client library for cross-team integration, and documenting/refactoring placement rules into modular APIs. These projects involved designing RESTful APIs in Java using Spring Boot, working with MySQL, and handling deployments through Flipkart's internal CI/CD tool. I also learned how backend

warehouse systems are architected, monitored, and scaled in a production environment. My work improved the maintainability, integration ease, and reliability of inventory processes.

**Tool used (Development tools - H/w, S/w) :** Java, Spring Boot, MySQL, Postman, Git, Jira, Confluence, Flow (CI/CD), Grafana, Google Workspace

**Objectives of the project :** Help to maintain and develop the

**Major Learning Outcomes :** Gained hands-on experience with Spring Boot, Java, RESTful APIs, and MySQL

Understood microservice architecture and CI/CD pipelines using internal tools

Learned to write production-ready code and perform testing using Postman and Grafana

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Flipkart provided a structured and supportive environment for interns. The work culture emphasized ownership, quality, and collaboration. We had access to internal documentation, recorded training sessions, and regular mentorship. I worked closely with senior engineers who reviewed code and provided feedback, helping me learn real-world development practices. Expectations included delivering high-quality code, documenting contributions clearly, participating in sprint planning via Jira, and attending regular team standups. Deployments to production required thorough testing and coordination. Despite being interns, we were given meaningful tasks that directly impacted live systems. The overall environment fostered professional growth and technical skill development.

**Academic courses relevant to the project :** Object-Oriented Programming, Operating Systems, FDSA

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT), BENGALURU**

**FACULTY NAME:** VINEET KUMAR GARG .

**STUDENT NAME:** RAJ PATEL (2021AAPS2882H)

Student Write-up

**PS-II Project Title:** Data Export Service

**Short Summary of work done during PS-II :** I worked on the development of a scalable Data Export Service as part of the backend engineering team. The objective was to build a cloud-native system that allows internal clients to export large datasets by defining custom data transformation pipelines via REST APIs. I contributed to designing and implementing key components of the service using Spring Boot, including API endpoints for job submission, cancellation, and status tracking. I developed a priority-based job scheduler that fetches and

claims jobs from the database using a lock-safe mechanism and dynamically schedules them for execution. A major part of my work involved building the logic to convert JSON-based transformation contracts into PySpark scripts, which were then executed on GCP Dataproc using Apache Airflow DAGs. I integrated Airflow callbacks to update job statuses and handle completion workflows. I also worked on implementing user authentication, rate limiting, job retry handling, and secure output delivery via Google Cloud Storage (GCS). Throughout the project, I gained practical experience in distributed data processing, cloud orchestration, DAG-based workflow management, and building fault-tolerant microservices. I closely collaborated with senior engineers to follow best practices in software architecture, scalability, and security. This internship helped me strengthen my skills in backend development and cloud infrastructure while contributing to a production-grade enterprise system.

**Tool used (Development tools - H/w, S/w) :** MacBook Pro (M3) , Spring Boot, PySpark, Apache Airflow, Google Cloud Platform (GCP), Dataproc, Google Cloud Storage (GCS), MySQL, IntelliJ IDEA, Jupyter Notebook, Postman, Git, GitHub, Docker, Maven, Gradle, Slack, JIRA, DBeaver, Sequel Ace

**Objectives of the project :** The objective of the Data Export Service project is to build a scalable, cloud-native system that allows clients to export large datasets through secure REST APIs. It supports custom data transformations defined by users, which are dynamically converted into PySpark scripts and executed on GCP Dataproc via Airflow. The system handles dynamic job scheduling based on priority, ensures concurrency safety, and provides features like authentication, rate limiting, and job tracking. Final outputs are uploaded to Google Cloud Storage with accessible download links, and users can monitor job progress, cancel running jobs, or retry failed ones through well-defined API endpoints.

**Major Learning Outcomes :** Through the Data Export Service project, I gained hands-on experience in building scalable and cloud-native data processing systems. I learned how to design and implement RESTful APIs for job submission and monitoring, dynamically schedule datas

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The working environment during my PS-II was collaborative, fast-paced, and technically enriching. I was part of the backend engineering team and worked closely with experienced developers and mentors who provided regular guidance and feedback. The company followed agile practices with daily stand-ups, code reviews, and sprint-based task tracking, which helped maintain clarity and structure in project execution. I had access to well-defined documentation, development tools, and cloud infrastructure, enabling smooth onboarding and productive development.

The culture encouraged ownership, innovation, and continuous learning. I was given the autonomy to design and implement critical components of the Data Export Service while being supported with timely code walkthroughs and design discussions. Communication across teams was open and respectful, which made it easy to seek help, understand broader system contexts, and stay aligned with project goals.

From the company, I expected exposure to real-world software engineering practices, opportunities to work on scalable systems, and the chance to understand how large-scale cloud services are designed and maintained. These expectations were not only met but exceeded. I also hoped for a professional environment that values learning and contributions from interns, and I found exactly that. Overall, the internship provided a strong foundation in backend development, cloud technologies, and team-based engineering practices, preparing me well for future roles in the tech industry.

**Academic courses relevant to the project :** OS , OOPS ,DBMS

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME:** VINEET KUMAR GARG .

**STUDENT NAME:** SAKSHI SINGH (2023H1030046G)

Student Write-up

**PS-II Project Title:** Forecasting for Ads Systems

**Short Summary of work done during PS-II :** 1. Wrote a Complex Clickhouse query involving different ARRAY functions to fetch the frequency of impression counts & their respective dates in the desired format based on the given conditions. 2. Analysed the Flipkart's internal API to evaluate for Array support. 3. Used HikariCP to connect the java codebase to the click house. 4. Integrated the clickhouse query code with existing dropwizard framework & wrote multiple test case scenarios to evaluate the quality of query. 5. Implemented the pre-processing function to positive and professionalize impression counts. 6. Analyzed the Zookeeper & Click house Keeper for clickhouse. 7. Set up & Configured the Clickhouse Keeper in the Forecasting Cluster. 8. Tested multiple On-Failure Scenarios & Replications in the Clickhouse Keeper Cluster. 9. Wrote Regression Tests for the DEMAND framework - Campaign Creation, Campaign Update & Business Account Creation. 10. Wrote the function to fetch top relevant key value pairs to validate the forecast request. 11. Wrote POC for multiple different queries required for forecasting rerun strategy

**Tool used (Development tools - H/w, S/w) :** IntelliJ, ClickHouse, Zookeeper, MySQL

**Objectives of the project :** With the help of this project advertisers can get the idea about the reach of their ad products on the bases of their specified dimension values. Additionally, they also get the insights about the number of their competing ad groups. Furthermore, they also get the probability of their ad group to be selected to display over publisher's page. On the basis of these, they can finetune their parameters to optimally reach their desired target.

**Major Learning Outcomes :** ClickHouse, ClickHouse Keeper, Zookeeper, Dropwizard, API Workflow, HikariCP, Caffeine Cache, MySQL

## **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was collaborative, fast-paced, and growth-oriented. Regular stand-ups, team demos, and open discussions promoted transparency and teamwork. Everyone was approachable, creating a space where asking questions and sharing ideas was encouraged.

The company expected interns to take full ownership of tasks, deliver quality code, and stay aligned with team goals. Emphasis was placed on clean, scalable solutions, continuous learning, and proactive communication.

Regular feedback and performance reviews ensured that we stayed on track while also growing professionally. Overall, the environment balanced independence and support, promoting both personal and professional development.

**Academic courses relevant to the project :** Database, Java, Distributed Systems

**PS-II STATION : FLIPKART (SOFTWARE DEVELOPMENT),BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: SANKET SATISH KALE (2023H1030091P)**

### **Student Write-up**

**PS-II Project Title:** Airflow Enhancements, API Integration, Multi-Demanding Data Integrity Monitoring System, Automated Weekly Health Monitoring with Cloud Integration and Notification System, Queue Message Recovery Automation System

**Short Summary of work done during PS-II :** During my PS-II, I worked on a variety of tasks across software development, automation, deployment, and access management. I began by strengthening my backend development skills through revisiting core Java fundamentals, advanced Java concepts, and Java Database Connectivity (JDBC). I also practiced version control using Git for effective collaboration. In backend development, I integrated REST APIs into existing systems, performed integration testing for several APIs developed using Spring Boot, created unit tests to validate functionality, and prepared test evidence for review. I also troubleshooted and resolved aspects related to SSH connectivity and database access. In automation, I developed Python scripts to automate internal processes such as system metrics collection (CPU, memory usage), anomaly detection, and task automation. I designed SQL queries to detect anomalies in data distributed across multiple database demanding. Additionally, I performed time complexity analysis on the anomaly detection scripts to optimize performance for large datasets. I enhanced these scripts by improving report formatting, extending data collection periods, and generating reports that were shared with stakeholders for monitoring. I integrated Google Chat notifications via webhooks for real-time updates and used Apache Airflow with Google Cloud Platform (GCP) for workflow orchestration. Furthermore, I implemented Role-Based Access Control (RBAC) models and gained hands-on experience with Docker and Kubernetes for containerization.

**Tool used (Development tools - H/w, S/w) :** IntelliJ, Postman, Kubernetes, Docker, Java Development Kit, Gradle, Git

**Objectives of the project :** 1. Airflow Enhancements: To improve performance, usability, and security by enhancing workflow automation using Apache Airflow, optimizing monitoring capabilities, implementing better access control, and integrating tools to maintain code quality. 2. API Client Integration : To integrate newly developed APIs into the existing client library, enabling client applications to easily access new features through simple method calls, without complex setup or configurations. 3. Automated Weekly Health Monitoring with Cloud Integration and Notification System: To build an automated system for collecting, analyzing, and reporting key service health metrics across cloud-based infrastructure, ensuring proactive monitoring and timely aspect detection. 4. Multi-Demanding Inventory Data Integrity Monitoring System: To develop a monitoring solution that detects inconsistencies in inventory data across distributed databases, ensuring data accuracy and preventing mismatches that could impact business operations. 5. Queue Message Recovery Automation System To design an automated system that safely recovers failed or stuck messages in processing queues, reducing manual intervention and ensuring smooth transaction processing.

**Major Learning Outcomes :** Python scripting for automation and monitoring, Opportunity- solving and performance troubleshooting, Technical documentation and test reporting, Solution implementation from opportunity statements, Industry oriented technical communication, Unit and Integration.

**Details of Papers/patents :** It was not a research work, it was a development work, so research paper was not used.

**Brief Description of working environment, expectations from the company :** Interning at a company like Flipkart gives an excellent opportunity to experience how real-world projects are handled in professional organizations. The environment is fast-paced and constantly evolving, where priorities often shift based on team requirements. Interns are assigned real projects that contribute directly to the company's ongoing work, giving them a sense of responsibility and ownership from the start. Adaptability is highly important, as interns need to manage changing tasks while maintaining efficiency and focus. Daily meetings and stand-ups help the team stay updated, where interns are expected to share their progress, raise any blockers, and seek guidance if needed. Strong communication skills make it easier to collaborate with team members, seniors, and cross-functional teams. Apart from technical contributions, companies value interns who show initiative, are eager to learn, and can independently handle tasks with minimal supervision. Opportunity-solving, time management, and professionalism are also key qualities that companies look for. Overall, internships in such companies are not only about applying technical knowledge but also about developing soft skills, learning how teams function, and understanding how businesses solve real-world opportunities at scale.

**Academic courses relevant to the project :** Database Management, Object Oriented Programming, Software Testing Methods, Operating System, Data Structures, Algorithms



**PS-II STATION : FLIPKART INTERNET PVT LTD - BUSINESS ANALYTICS, BENGALURU**

**FACULTY NAME: RAMESH VENKATRAMAN .**

**STUDENT NAME: RISHIT SHARMA (2021A4PS2990H)**

Student Write-up

**PS-II Project Title:** Increasing Platform Level Instock for Flipkart

**Short Summary of work done during PS-II :** I developed a predictive model that predicts stock-outs at with a lead time of two weeks, providing the procurement team with enough time to take action on the results of the model. I also built a descriptive framework, that uses past data to identify the reason behind drop in instock levels.

**Tool used (Development tools - H/w, S/w) :** Python, SQL, Microsoft Excel, Microsoft Powerpoint, PowerBI

**Objectives of the project :** The main objective of the project was to increase the platform level instock for Flipkart using a proactive and a reactive approach, and then comparing the two approaches.

**Major Learning Outcomes :** I had a very surface level knowledge about analytics prior to my PS. This experience at Flipkart gave a proper understanding of business analytics and I understood the functioning of one of India's e-commerce giants.

**Details of Papers/patents : NIL**

**Brief Description of working environment, expectations from the company :** The working environment at Flipkart is very relaxed and balanced, the people are very supportive and helping in nature. People expect you to have basic understanding of the areas of functioning of your team as well as the tools that are being used frequently. Also, the managers and directors expect you to provide regular updates on your projects.

**Academic courses relevant to the project :** Machine Learning, Data Mining, Database Systems, Artificial Intelligence

**PS-II STATION : FLIPKART INTERNET PVT LTD - BUSINESS DEVELOPMENT, BENGALURU**

**FACULTY NAME: RAMESH VENKATRAMAN .**

**STUDENT NAME: GARGI MISHRA (2021A1PS2804G)**

Student Write-up

**PS-II Project Title:** Competitive Benchmarking of Flipkart Minutes with its competitors like Zepto, blinkit etc. RPC and Ads ROI Optimization with automation of process using Python.

**Short Summary of work done during PS-II :** During my PS-II internship, I worked on key strategic projects aimed at enhancing business performance and operational efficiency within Flipkart's quick commerce vertical. One of the primary projects involved competitive benchmarking of Flipkart Minutes against major competitors such as Zepto, Instamart, and Blinkit. This included detailed analysis of assortment, pricing, delivery time, promotional strategies, and user experience. The insights were used to identify gaps and recommend actionable improvements to strengthen Flipkart's market positioning. In parallel, I contributed to RPC (Revenue per Cost) and Ads ROI optimization, where the focus was on identifying underperforming SKUs across various investment levers including JIRA, Rewards, and Coupons. By calculating and analyzing the RPC at an FSN level, I developed a data-driven model to flag consistently low-performing SKUs over a 4-month period. Furthermore, I implemented filters to exclude organically growing SKUs from further ad spend, ensuring more efficient budget allocation. To streamline these analyses, I developed Python-based automation scripts to integrate, clean, and process large datasets from multiple sources. These scripts significantly reduced manual effort and improved turnaround time for generating actionable insights.

**Tool used (Development tools - H/w, S/w) :** Python, Excel, SQL

**Objectives of the project :** To optimize investment process and also Ads expenditure. Also to find out gaps in newly launched Flipkart Minutes

**Major Learning Outcomes :** I significantly strengthened my technical proficiency in tools such as Python, Excel, and SQL, while also enhancing key soft skills including effective communication, professional interpretation of data, and stakeholder management.

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment was extremely fast-paced and demanding, with high expectations placed on all team members, including interns. Interns were integrated into the workflow in the same manner as full-time employees, with no differentiation in workload or accountability. While the work culture was intense and at times overwhelming, it offered a valuable opportunity to gain real-world exposure to a high-performance corporate setting.

Although initial support from the team was limited, this challenge encouraged self-reliance and fostered rapid learning and opportunity-solving abilities. Through this experience, I significantly strengthened my technical proficiency in tools such as Python, Excel, and SQL, while also enhancing key soft skills including effective communication, professional interpretation of data, and stakeholder management.

**Academic courses relevant to the project :** Business related courses

**PS-II STATION : FLIPKART INTERNET PVT LTD - DATA ENGINEERING, BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: KANIKA GARG . (2020B2A30654P)**

Student Write-up

### **PS-II Project Title: Medallion Validation Framework**

**Short Summary of work done during PS-II :** During my PS-II at Flipkart, I contributed to improving data quality and trust by enhancing the Medallion Validation (MV) Flow onboarding process and developing a configuration-driven validation system. This ensured rigorous checks on critical financial and operational data, enhancing the accuracy and reliability of month-end closing (MEC) reports essential for business decisions and regulatory compliance. By enabling early error detection, the system minimized the propagation of faulty data, mitigating risks and preventing costly downstream aspects. I significantly improved operational efficiency by optimizing the validation framework, achieving up to 70% reduction in validation runtimes. This optimization freed cluster resources and accelerated report generation. Additionally, I automated YAML config generation and integrated validations with Azkaban job workflows, streamlining the onboarding of new business flows. The automation of Jira ticket creation for failed validations further expedited aspect resolution and reduced manual interventions. To support scalability and flexibility, I transitioned from a Python/SQL-heavy framework to a YAML-based, self-serve model, empowering analysts and business users to independently onboard validations without deep technical expertise. This reduced reliance on engineering teams and scaled validation coverage across business units. My contributions laid a strong foundation for future innovations, including UI automation, dynamic thresholding, and real-time validation dashboards. I also supported the integration of Cerebrum, Flipkart's data orchestration engine, to enable end-to-end data quality management. These enhancements align with Flipkart's broader goals of data governance, automation, and scalability, reinforcing its commitment to being a data-driven organization.

**Tool used (Development tools - H/w, S/w) :** Tools, Technologies, and Key Learnings during PS-II at Flipkart\*\* During my internship with Flipkart's DCC (Data Completeness and Correctness) Team, I worked across a diverse tech stack, contributing to high-impact data validation workflows.

**Objectives of the project :** This project focused on ensuring the integrity and completeness of financial data at Flipkart by contributing to the Medallion Validation Framework (MV Flow). A scalable, Spark-based system was developed to parallelize validations and reduce redundancy, enabling faster and more reliable data checks. Automation tools and YAML-driven configurations streamlined onboarding, significantly improving data quality processes during month-end closures.

**Major Learning Outcomes :** Gained hands-on experience in scalable data validation using Spark and YAML-driven frameworks.

Learned to design and automate robust data quality checks critical for financial reporting.

**Details of Papers/patents :** No papers and no patents

**Brief Description of working environment, expectations from the company :** During my internship with the Data Completeness and Correctness (DCC) team at Flipkart, I experienced a dynamic and fast-paced work environment driven by innovation, collaboration, and a strong emphasis on data reliability. Despite being a virtual setup, the team ensured seamless onboarding, regular sync-ups, and open communication channels, which fostered a highly supportive and collaborative culture. I was encouraged to ask questions, share ideas, and take ownership of critical components of the MV Flow validation framework.

The team followed an agile workflow with well-defined goals, timely feedback, and periodic reviews that helped me stay aligned with expectations and track my progress effectively. Technical mentorship was readily available, and knowledge sharing was a norm—through documentation, code reviews, and team discussions.

From the company, I expected a technically enriching experience, exposure to real-world data engineering practices, and the opportunity to contribute meaningfully to large-scale systems. Flipkart exceeded these expectations by allowing me to work on impactful features that directly supported business-critical processes such as month-end financial reporting. I also appreciated the focus on scalable architecture, automation, and end-to-end ownership.

Overall, the work culture at Flipkart promoted learning, accountability, and innovation. It provided an ideal platform to build both technical depth and an understanding of how data quality drives strategic decision-making in large-scale organizations.

**Academic courses relevant to the project :** \*\*Academic courses relevant to the project:\*\*

1. \*\*Database Systems\*\* – Provided foundational knowledge in SQL, data modeling, and query optimization, essential for writing and analyzing validation queries.
2. \*\*Data Structures and Algorithms\*\* – Helped

**PS-II STATION : FLIPKART INTERNET PVT LTD - DATA ENGINEERING, BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: NIKHIL DHANARAJ (2021A7PS0427H)**

Student Write-up

**PS-II Project Title:** Platform Consistency and Versioning

**Short Summary of work done during PS-II :** During my 5-month internship at Flipkart, I worked on the Platform Consistency and Versioning track of the data visualization platform. My contributions included redesigning Elasticsearch mappings to move from dynamic to hybrid

indexing for improved type safety and flexibility. I implemented a ModelingServiceClient to decouple metadata and modeling services and rewrote API contracts for better modularity. I also performed schema migration of multiple database entities using UUIDs, redesigned entity relationships, and handled compatibility with legacy data. Additionally, I addressed tech debts such as implementing timed metrics for observability, resolved aspects related to duplicate job creation, and updated deprecated service endpoints. I wrote efficient Elasticsearch queries for analytics and contributed to refactoring efforts across services. These tasks not only improved performance and maintainability but also significantly reduced deployment latency, bringing downtime down from 1.5 hours to 2 mins in production.

**Tool used (Development tools - H/w, S/w) :** IDE: IntelliJ IDEA Database: MySQL, Elasticsearch Cloud: Google Cloud Platform (GCP) DevOps: GitHub, K8s (Kubernetes), Canary Deployments, JIRA Monitoring: Grafana

**Objectives of the project :** To enhance platform consistency and versioning in Flipkart's data visualization platform.

**Major Learning Outcomes :** Gained deep knowledge of Elasticsearch and its mapping strategies Learned robust backend design using SOLID principles Understood schema migration at scale including UUID usage and query optimization Implemented modular service architecture with Modeli

**Details of Papers/patents : Nil**

**Brief Description of working environment, expectations from the company :** The working environment at Flipkart was fast-paced and collaborative. Everyone was always ready to help when needed. My onboarding began with the JEDI training program, where I built a fitness tracking app to get hands-on experience with Flipkart's internal tools and workflows. Throughout the internship, I had regular catch-ups with my manager and mentors, who were always supportive and approachable. Daily standups were there to ascertain the progress in each task. The expectations from interns were high—I got to work on production-level tasks like writing migration scripts, refactoring legacy code, and designing scalable APIs. There was a strong emphasis on writing clean, testable, and well-documented code.

**Academic courses relevant to the project :** OOPS, DBMS

**PS-II STATION : FLIPKART INTERNET PVT LTD - UI TEAM ,BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: BAGADIA SMIT RAMYAVADAN (2021A7PS2406G)**

Student Write-up

**PS-II Project Title: Karma Project**

**Short Summary of work done during PS-II :** Developed new components in Karma Platform. Optimized bundle size by identifying unused libraries and components, added input validation and error handling. I also worked on Java backend services where I implemented new APIs.

**Tool used (Development tools - H/w, S/w) :** VS Code, IntelliJ, Git, Java, Kubernetes, Postman

**Objectives of the project :** Optimize the site, adding new features

**Major Learning Outcomes :** Frontend development in React Typescript, Backend Development in Java

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment is very good. Team members were always there to help whenever I got stuck. Sufficient time was given to learn and complete the tasks. The work life balance is pretty good.

**Academic courses relevant to the project :** OOP, DBMS

**PS-II STATION : FLIPKART INTERNET PVT LTD - UI TEAM ,BENGALURU**

**FACULTY NAME: VINEET KUMAR GARG .**

**STUDENT NAME: MALLIKA AJMANI . (2021AAPS1488P)**

Student Write-up

**PS-II Project Title:** Scale 3D

**Short Summary of work done during PS-II :** UI design, spike docs, test cases, api integration

**Tool used (Development tools - H/w, S/w) :** Python, Pytest, React, Jest

**Objectives of the project :** UI improvement in backend

**Major Learning Outcomes :** Python, Pytest, React, Jest

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Good team, everyone was helpful

**Academic courses relevant to the project :** OOPs, DSA

**PS-II STATION : FRANKLIN TEMPLETON - DATA SCIENCE/FINANCE ,HYDERABAD**

**FACULTY NAME: NIRANJAN SWAIN .**

**STUDENT NAME: JEWALIKAR RUDRA SHASHANK (2021A7PS0450P)**

Student Write-up

**PS-II Project Title:** Data Science in Commercial Real Estate

**Short Summary of work done during PS-II :** Market Clustering for Resource Allocation: Clustered U.S. real estate markets using static and time-series fundamental variables to support resource allocation decisions and enable cluster-based tuning of LSTM forecasting models. Utilized algorithms like Affinity Propagation and Hierarchical Clustering, incorporating expert feedback for validation. Submarket Analysis using GCNs: Extended market analysis to submarkets by integrating geographical adjacency and socioeconomic data. Constructed adjacency graphs and applied Graph Convolutional Networks (GCNs) to generate embeddings, enabling effective clustering and identification of top-performing submarkets. End-to-End Data Pipeline for Real Estate Data: Built a Python workflow to extract structured time-series data from REIT PDF reports, used OpenAI API for automated data cleaning, and integrated internal lease records from Excel files. The final dataset was standardized, merged, and deployed to Snowflake for scalable, cloud- based access.

**Tool used (Development tools - H/w, S/w) :** Python PandasPython, Snowflake, OpenAI API, Git, Jupyter Notebooks, Excel

**Objectives of the project :** Market selection for resource allocation and fine tuning of forecasting models

**Major Learning Outcomes :** Applying ML techniques for market grouping Using GCNs and graph-based models for submarket analysis  
Building end-to-end data pipelines for extracting and integrating unstructured and semi- structured data  
Gained exposure to real-world business opportunities

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The internship was conducted on-site and involved hands-on work in applying data science to commercial real estate. While the technical projects were somewhat meaningful, the overall work environment posed several challenges.

There was limited training and structured mentorship, which made it challenging to align with expectations early on. Communication around deadlines was inconsistent, and there were instances of micromanagement and unclear role boundaries within the team. Some teammates exhibited unprofessional behavior, occasionally acting beyond their designated responsibilities. Additionally, HR was often unresponsive when support was needed.

These factors impacted the overall internship experience, highlighting the importance of clear communication, proper mentorship, and professional conduct. Nonetheless, the experience taught me to be more proactive, adaptable, and independent in a complex work environment.

**Academic courses relevant to the project :** Machine Learning, Deep Learning, Principles of Economics

**PS-II STATION : GE AEROSPACE ,BENGALURU**

**FACULTY NAME:** PARAMESW CHIDAMPARAM .

**STUDENT NAME:** MUPPAVARAPU HARINI (2023H1410099H)

Student Write-up

**PS-II Project Title:** To Study Shape Memory Alloys as an actuator

**Short Summary of work done during PS-II :** As a Research Intern at GE Aerospace during Practice School-II, I studied the application of Shape Memory Alloys (SMAs), as actuators. The project involved simulating the shape memory effect under varying thermal and mechanical loads using Finite Element Analysis (ANSYS). The simulations captured phase transformations and deformation recovery under tensile and compressive loading. In addition, I designed and analyzed Belleville disc springs to act as biasing elements in the system. Analytical calculations and FEA were used to evaluate spring performance, with two models—simplified and conceptual—showing results that closely matched theoretical predictions. The study validated the potential of combining SMAs and Belleville springs in compact actuation systems. This internship enhanced my understanding of smart materials, FEA tools, and mechanical system design.

**Tool used (Development tools - H/w, S/w) :** Siemens NX, Ansys Workbench, Ansys APDL, MATLAB

**Objectives of the project :** To study Shape Memory alloys as an actuator ➤ SMA for Actuation  
➤ Mechanical spring for resetting

**Major Learning Outcomes :** Learnt about Shape memory alloys and the use of shape memory effect in actuators, Hands on experience with simulation and design software

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at GE Aerospace was structured yet supportive. I was part of a technically skilled team that encouraged learning and open communication. While I had clear goals to meet, I was



also given the freedom to explore solutions independently, with guidance available whenever needed. The company expected interns to be proactive, technically sound, and able to apply their knowledge effectively. Regular updates, attention to detail, and clear documentation were important. Tools like ANSYS and MATLAB were commonly used, and I was encouraged to dive deep into simulations and analysis.

Overall, it was a professional and engaging environment that pushed me to grow both technically and personally.

**Academic courses relevant to the project :** Finite Element Methods, Strength of Materials, CAAD

**PS-II STATION : GE VERNOVA ADVANCED, BENGALURU**

**FACULTY NAME:** SWAPNA S KULKARNI

**STUDENT NAME:** MISHRA ADITI PRABHAT (2023H1060116G)

Student Write-up

**PS-II Project Title:** Development of python tool for growth rate extraction from time series data

**Short Summary of work done during PS-II :** Compared Jupyter and spyder to get better idea which one should be used from development of python tool for growth rate extraction And developed the tool for the same.

**Tool used (Development tools - H/w, S/w) :** Python, MATLAB

**Objectives of the project :** To develop a Python tool which will extract growth rate from time series data by using different growth rate extraction methods

**Major Learning Outcomes :** Understanding different python module  
How different growth rate methods works

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Everyone is very cooperative and understanding.

**Academic courses relevant to the project :** Power plant engineering, intermediate courses on MATLAB and Python.

**PS-II STATION : GE VERNOVA ADVANCED, BENGALURU**

**FACULTY NAME: SWAPNA S KULKARNI**

**STUDENT NAME: S SREYAS (2023H1060146P)**

Student Write-up

**PS-II Project Title:** Techno-economic viability of sorbent based carbon capture process

**Short Summary of work done during PS-II :** Did study the recent developments in this field, collected data needed for simulation, did a system level simulation of theoretical adsorption model, understanding the inputs and outputs of the devices used in that, did a parametric sensitivity analysis by varying one parameter of inlet carbon-dioxide concentration, doing a sensitivity analysis and to see the cost of adsorbent required based on the mass of sorbent alone.

**Tool used (Development tools - H/w, S/w) :** Aspen Package

**Objectives of the project :** To study the recent developments in this field and to come up with a simulation model of the carbon capture plant. Do a parametric study by varying the inlet carbon dioxide concentration.

**Major Learning Outcomes :** Extensive Research, Aspen Package software, Sensitivity analysis

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Good working environment and very cooperative. Received necessary guidance without negligence.

**Academic courses relevant to the project :** Thermodynamics, Mathematics and a bit of chemistry

**PS-II STATION : GE VERNOVA ADVANCED, BENGALURU**

**FACULTY NAME: SWAPNA S KULKARNI**

**STUDENT NAME: C SHAILESH (2023H1060151P)**

Student Write-up

**PS-II Project Title:** Design and Analysis of high pressure moisture rig

**Short Summary of work done during PS-II :** Several machines operate at different operating conditions, which includes environments with high moisture and high pressure. Moisture can affect the performance of machines, cause corrosion of the parts and reduce its life. Moisture and high pressure can also accelerate corrosion. Effect of moisture needs to be studied to improve performance and reliability of the machines. The study is performed in a moisture rig which allows us to understand the influence of moisture is done in a controlled environment.

The project initially focuses on validation of CFD analysis of heat transferrin pipe in pipe heat exchanger using hand calculations involving first principles. CFD analysis is performed for different pipe configuration in pipe in pipe heat exchanger to identify the optimal design. Lumped Mass System analysis is performed to check the state of the water droplet upon injection. The project will conclude with providing a feasible concept is proposed to create a high moisture content environment for the material testing and thereby meet the requirements.

**Tool used (Development tools - H/w, S/w) :** ANSYS, Python, Excel

**Objectives of the project :** The objective is to provide a feasible solution to create an environment where the material samples would be subjected to high-moisture content. The idea is to come up with a simplified calculation methodology to achieve the desired moisture content in the test rig.

**Major Learning Outcomes :** - Use of ANSYS tool for CFD Simulation  
- Development of hand calculations to predict heat transfer using Python Tool  
- Design and analysis of efficiency of Pipe in pipe heat exchanger

**Details of Papers/patents :** - No papers or patents were involved with the project

**Brief Description of working environment, expectations from the company :** - The working environment should be simulating.

- People should understand and guide you
- Easy to interact with anyone and clarify your doubts

**Academic courses relevant to the project :** - Computational Fluid Dynamics  
- Thermal Equipment Design

**PS-II STATION : GE VERNOVA ADVANCED, BENGALURU**

**FACULTY NAME: SWAPNA S KULKARNI**

**STUDENT NAME: NIKHILA VARMA JK (2023H1410101P)**

Student Write-up

**PS-II Project Title:** Digitization of Costing tool

**Short Summary of work done during PS-II :** My work in PS-II included digitizing a should costing tool using python. The work included designing the system architecture and then developing the database back end and front end modules. The major requirement of role based access has also been implemented. Outside of this project, work has also been done on data analysis, to identify the volatile factors that affect the costing of a product and their influences on each other.

**Tool used (Development tools - H/w, S/w) :** Python, Excel, PPT

**Objectives of the project :** To create a complete digital product for costing

**Major Learning Outcomes :** - Learnt the complete process from visualization to actuation of a digital product

Learnt to create UI for a digital tool.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The environment was very supporting and conducive to learning. It is generally a very open space leading to learning even outside of our domain.

**Academic courses relevant to the project :** Product Design, Quality Control

**PS-II STATION : GOODERA - ENGINEERING ,BENGALURU**

**FACULTY NAME: ASHISH NARANG .**

**STUDENT NAME: RISHI SINHA (2021A3PS2930H)**

Student Write-up

**PS-II Project Title:** DEVELOPMENT CONTRIBUTIONS ON GOODYOS

**Short Summary of work done during PS-II :** During my PS-II internship, I contributed to a number of improvements on an internal software platform designed to streamline operations related to events and user profiles. My responsibilities included fixing existing aspects, implementing new features, and enhancing the overall usability and accessibility of the system. I worked on both backend and frontend tasks, ensuring smooth data flow, user-friendly interfaces, and logical workflows. The internship also involved testing the application thoroughly and responding to team feedback constructively.

**Tool used (Development tools - H/w, S/w) :** React, NestJS, Node.js, PostgreSQL, Visual Studio Code, Postman, Bitbucket, AWS

**Objectives of the project :** The project focused on improving different aspects of an internal web- based platform used for volunteer and event management. It involved tasks related to enhancing user interfaces, optimizing platform responsiveness, supporting localization needs, managing data more efficiently, and addressing user experience-related feedback.

**Major Learning Outcomes :** Through this internship, I gained practical exposure to full-stack development. I learned how large-scale web applications are structured and maintained, and how to work with modern frameworks to build scalable features.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The organization offers a supportive and growth-focused work environment that values learning, innovation, and collaboration. Mentors like Mr. Karan Saklani and Mr. Harsh Nagda bring strong technical expertise and guidance, fostering a culture of continuous improvement.

**Academic courses relevant to the project :** FDSA, ML, OOPS

**PS-II STATION : GOODERA - GTM ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: SOMANI RISHABH MANISH (2020B1A42122G)**

Student Write-up

**PS-II Project Title:** Development on goodyos

**Short Summary of work done during PS-II :** During my internship as a full stack developer, I gained valuable experience working on both frontend and backend development. I learned to design effective database schemas and backend architecture before writing code, which helped create scalable and well-structured systems. Additionally, I developed skills in pitching new features , improving my communication and collaborative abilities. I also focused on optimizing UI/UX to enhance the overall customer experience, making interfaces more intuitive and user- friendly. This experience taught me how to integrate technical solutions with user-centered design to deliver impactful, efficient products.

**Tool used (Development tools - H/w, S/w) :** VScode, BitBucket, Git, React, NestJs, AWS

**Objectives of the project :** To develop new features and fix bugs for internal website of goodera

**Major Learning Outcomes :** Web Development, Design of Backend Architecture

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The organization cultivates a highly supportive and motivating work environment that emphasizes continuous learning, growth, and collaboration. It thrives on a culture where innovation and development are central, creating a space that encourages both personal and professional advancement. The managerial and technical leadership, particularly figures like Mr. Karan Saklani and Mr. Harsh Nagda, play a crucial role in shaping this positive atmosphere. Their strong technical expertise, insightful guidance, and strategic leadership help the team effectively overcome challenges and stay focused on learning and improvement. This collaborative approach not only enhances productivity but also fosters a sense of shared purpose among employees. The environment is

built on mutual respect and encouragement, making it an ideal place for individuals to develop their skills and reach their potential. Overall, the organization's culture ensures that employees are well-supported and motivated to achieve their goals while contributing meaningfully to the company's success.

**Academic courses relevant to the project :** OOPS, DSA, OS

**PS-II STATION : GOODERA - PRODUCT ,BENGALURU**

**FACULTY NAME:** SANDEEP KAYASTHA .

**STUDENT NAME:** ALLA DEDEEPPYA (2020B1A12396H)

Student Write-up

**PS-II Project Title:** Improving Virtual Volunteering

**Short Summary of work done during PS-II :** The work aims to address the shortcomings of virtual volunteering methods with rational and cost effective solutions. The aspects are addressed by adding two additional features to the already existing platforms. The intention behind the work is to make users' journeys easier and hassle free . Sufficient deliberation and discussion with all the teams involved was done and have tried to accommodate the interest of all.

**Tool used (Development tools - H/w, S/w) :** lookers, googlesheets, zipper

**Objectives of the project :** Develop a new feature of unique online editable PPT

**Major Learning Outcomes :** User Journey, APIs,Product Management

**Details of Papers/patents : none**

**Brief Description of working environment, expectations from the company :** Extremely good environment, helpful seniors and satisfying work. Reasonable exception and stress free work

**Academic courses relevant to the project :** Principles of Economics

**PS-II STATION : GOODERA - PRODUCT ,BENGALURU**

**FACULTY NAME:** SANDEEP KAYASTHA .

**STUDENT NAME:** SANKHARVA SHYAM RAMESHBHAI (2021A1PS2563G)

Student Write-up

**PS-II Project Title:** Design and Development of Workflow Automation and Data Integration Solutions

**Short Summary of work done during PS-II :** Making and updating automated email workflows running on multiple timelines via different triggers. Data analysis and preparing multiple relevant reports with different parameters for respective teams. Working on client facing dashboards. Exploring AI Tools for AI Integration in the current automation processes used in the company. Handling type form requests for custom events & clients. Setting up new champion & host communication methods (emails ) for global clients with custom data requirements. Worked on JIRA tickets, majorly did QA.

**Tool used (Development tools - H/w, S/w) :** Zapier, Google Integrated tools ( looker studio, app scripts, sheets, document studio ), Typeform, Metabase

**Objectives of the project :** The project is designed to make everyday tasks easier by automating workflows and cutting down on repetitive work. It brings together data from different sources so information moves smoothly and is easy to access. Dashboards are built to give clear insights, helping teams make better choices. The project also works on making systems more user-friendly and functional. Managing relationships with stakeholders is a big part of the job, making sure solutions fit business needs and deliver real value. Ultimately, the aim is to make operations run more efficiently, lower costs, and increase productivity, all while meeting stakeholder expectations.

**Major Learning Outcomes :** The project gave me important experience in automating workflows, combining data from different sources, and building interactive dashboards to visualize information. It helped me improve my ability to work with stakeholders, making sure the solutions we

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** This organization helps everyone feel welcome and encouraged at work. People here are always learning, working together, and looking for ways to improve. Manager and product team make sure the workplace stays positive and helpful. My manager, Shubham Garg is very supportive and always ready to help even with small doubts. The team ensures that you get proper ownership of tasks and can collaborate with other teams for a better learning experience.

**Academic courses relevant to the project :yes**

**PS-II STATION : GOODERA - PRODUCT ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: VITTAL ORUGANTI (2021A3PS0778H)**

**Student Write-up**

**PS-II Project Title: Product Ops Automation & Insights**

**Short Summary of work done during PS-II :** During my internship at Goodera, I contributed to solving operational inefficiencies by streamlining workflows, improving data visibility, and exploring AI integration. I developed automated email workflows using Google Sheets and Apps Script, reducing manual intervention and improving communication accuracy across internal and external stakeholders. I built a modular audiobook recording platform in Appsmith, integrating Dropbox and Google Sheets for seamless audio management and tracking. I also created a flexible web scraping tool using Python and BeautifulSoup to gather structured content from multiple websites efficiently. Additionally, I designed interactive dashboards in Metabase using SQL to support data-driven decision-making across teams, helping track KPIs, analyze volunteer engagement, and automate recurring reporting processes. I also collaborated on AI exploration initiatives, identifying areas for future integration to enhance operations.

**Tool used (Development tools - H/w, S/w) :** Apps Script in Google Sheets, Appsmith (Java Script based low code platform), Metabase, BeautifulSoup Library in Python

**Objectives of the project :** This project aimed to streamline and enhance Goodera's internal operations through workflow automation, low-code platform development, and data analysis & integration

**Major Learning Outcomes :** Gained hands-on experience in workflow automation, low-code development, web scraping, and data visualization using tools like Google Apps Script, Appsmith, Python, SQL, and Metabase. Strengthened soft skills in cross-functional collaboration, opportunity-sol.

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment at Goodera was relatively relaxed and supportive. Unless a task was time-sensitive or high-priority, there was a strong emphasis on maintaining a healthy work-life balance, and we were encouraged to work within the allocated hours. The culture promoted autonomy and accountability, trusting interns to manage their own time and responsibilities effectively. The primary expectation from the company was consistent progress, i.e., either completing assigned tasks or making reasonable headway each day. There was clear communication and approachable mentors.

**Academic courses relevant to the project :** Computer Programming, Technical Report Writing, Object Oriented Programming, Foundations of Data Structures and Algorithms.

**PS-II STATION : GOOGLE INDIA DEMANDING WARE ENGINEERING ,BENGALURU**

**FACULTY NAME: SANJAY VIDHYADHARAN .**

**STUDENT NAME: PRERNA SINGH (2023H1230193H)**

Student Write-up



## **PS-II Project Title: 1.CRAFT Test Timing Characterization**

**Short Summary of work done during PS-II :** Optimizing Performance and Enhancing Inter- Processor Communication Our recent efforts have significantly advanced test characterization, random number generation, memory management, and inter-processor communication, crucial for optimizing our dual-chiplet SoC. A key achievement was the CRAFT Test Timing Characterization. We accurately determined true concurrency by analyzing test timestamps and core mask data. This allowed us to calculate individual test durations, identify the fastest- executing tests, and then dynamically adjust iteration counts for all other tests to achieve maximum concurrency. This entire process was automated with a C implementation, leading to substantial performance gains. For Random Number Generation, we gained expertise in gRNG, TRNG, DRBG, and their associated registers (RNDR, RNDRRS). We successfully implemented and optimized a timeout mechanism for gRNG, ensuring test failures if valid random numbers aren't generated within a specified duration, improving test reliability. In memory management, we developed the SHELL\_PRINT\_TO\_SC macro. This innovative solution converts ASCII strings to bytes and stores them directly in DDR via AllocatePool, bypassing console printing for more efficient data handling. We also made significant strides in SCMI Interface Implementation. We established edk2 as the message transmitter and Zephyr as the message receiver, enabling robust inter-processor communication for data printing. This included defining a shared memory region and circular buffer structure in DDR, complete with monitoring for HEAD/TAIL pointers and robust overflow/underflow detection. Finally, we've begun Enhancing core mask configurations for dual chiplet SoC, optimizing computational core allocation. This involves potentially doubling active cores and ensuring the SoC reliably supports increased core counts, directly boosting overall processing capability.

**Tool used (Development tools - H/w, S/w) :** Company's Internal tools

**Objectives of the project :** To achieve maximum concurrency

**Major Learning Outcomes :** -Found out the true concurrency with current iteration count

-Analyzed the macro to print the test starting and finishing timestamp

-Came up with the printing of these timestamps along with the core mask for each test on the console.

-Mapped the executed

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Open and Collaborative:

Open communication and transparent dialogue.

Teamwork highly promoted, peer learning.

Open workspaces to facilitate interaction.

Employee Well-being & Perks (Extensive):

Competitive salaries and comprehensive benefits (health, life, disability, 401k).  
Free gourmet meals, snacks, and various on-site amenities (gyms, spas, napping pods, dry cleaning).  
Work-life balance initiatives: flexible work, hybrid models, remote options, generous parental leave.  
Strong focus on professional development and continuous learning. Talent & Excellence:  
Data-driven decision-making.  
Expectation of continuous learning and skill expansion.  
Inclusivity and Community:  
Commitment to diversity and inclusion.  
Efforts to build a welcoming and comfortable atmosphere.  
Potential Challenges:

**Academic courses relevant to the project** : VLSI Design, CAD, VLSI Architecture

## **PS-II STATION : GOOGLE INDIA SOFTWARE, BENGALURU**

**FACULTY NAME:** A MICHAEL ALPHONSE

**STUDENT NAME:** VENKATAVIHAN DEVAKI . (2021A7PS0429P)

Student Write-up

### **PS-II Project Title:** Enhancement to the Data Storage Model of Datacenter Serving Infrastructure

**Short Summary of work done during PS-II** : This project fundamentally re-architected a data storage platform to resolve critical scalability and performance limitations. The core achievement was replacing an inefficient snapshot-based history mechanism with a modern, delta-based change tracking system. This new model, which records only granular modifications, significantly reduces storage costs and accelerates historical data queries. This foundational change enabled the development of several powerful new capabilities. A sophisticated conflict detection algorithm was implemented to intelligently handle concurrent updates, allowing for more flexible, parallel workflows. To make the new history accessible, an interactive dashboard was created for users to explore any entity's complete lifecycle, alongside a function to revert specific changes. This was all supported by a resilient, asynchronous processing pipeline to ensure high performance without impacting users. A crucial data migration process was also executed to convert years of legacy snapshots into the new format, unifying the entire data history. The project successfully delivered a more performant, collaborative, and transparent system, providing powerful new tools for data management and auditing.

**Tool used (Development tools - H/w, S/w)** : Spanner, Blaze, GoogleSQL, Java

**Objectives of the project** : Current data storage platform faces scalability and performance challenges due to its snapshot-based history mechanism. This project aims to address these limitations by implementing a delta-based change tracking system, a "time machine" feature for

retrieving past states, and support for collaborative planning and simulations. The core opportunity this project will tackle is efficient handling of concurrent updates, which will in turn solve other opportunities by providing performant access to historical data.

**Major Learning Outcomes :** This project provided extensive learning in designing and implementing scalable, resilient data management systems within a large-scale, distributed environment. A key outcome was a deep, practical understanding of database architecture, specifically the

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The work environment is collaborative and communicative, atmosphere where information sharing is constant and seamless. The nature of the work is slightly dynamic, requiring the ability to manage multiple concurrent tasks and continuously absorb new context to navigate complex projects effectively. Supportive culture among colleagues, who are readily available to provide assistance and share knowledge.

Expectations are clearly structured around completing predefined project milestones, providing a solid framework. While meeting these core objectives is the priority, there is also strong encouragement to pursue stretch goals if time permits.

**Academic courses relevant to the project :** DBMS, OOP, DSA, DAA

**PS-II STATION : GRANULES INDIA LTD ,HYDERABAD**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: ABHISHEK SHAILESH KARPE (2023H1010018H)**

Student Write-up

**PS-II Project Title:** Enhancing Operational Accessibility: A Power BI Integration for Comprehensive Analytics & Improving Effluent Quality: Color Optimization in RO Permeate for Sustainable Effluent Treatment

**Short Summary of work done during PS-II :** At Granules India Limited, my PS-II consisted of two significant projects. The first involved developing a Power BI dashboard for Unit 1. This dashboard consolidated plant data into a single platform, enabling live monitoring of KPIs, improving visibility, and aiding operational decision-making. I worked on data structuring, metric selection, and dashboard design under the guidance of my mentor. The second project focused on analyzing and reducing color in RO permeate from the effluent treatment process. After reviewing lab data and discussing with plant operators, I identified probable causes such as upstream process fluctuations. I proposed feasible chemical and process improvements to improve the quality of treated water. This internship enhanced my understanding of data

analytics in a manufacturing setup and gave me a strong foundation in sustainability-driven process improvement.

**Tool used (Development tools - H/w, S/w) :** Power BI, Microsoft Excel, Plant Lab Equipment (for effluent analysis)

**Objectives of the project :** 1. To design and deploy an interactive Power BI dashboard that enables real-time monitoring and comprehensive analytics for Unit 1 operations. 2. To study the cause of high color in RO permeate and suggest sustainable solutions to reduce color in final treated effluent for better environmental compliance.

**Major Learning Outcomes :** Learned to create functional, data-driven dashboards using Power BI  
Understood industrial effluent treatment processes and regulatory expectations.  
Gained experience in identifying and solving real-world operational and environmental opportunities.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment at Granules India was focused, structured, and encouraging. I was expected to work independently, maintain timelines, and provide clear updates. Regular reviews were held to track progress and resolve challenges. Safety and compliance were top priorities. The company encouraged interns to take initiative and actively engage with technical teams. I had opportunities to interact with operations, environment, and quality departments, which helped broaden my industrial perspective. Professional conduct, regular reporting, and attention to detail were highly valued.

**Academic courses relevant to the project :** Environmental Engineering  
Industrial Waste Management  
Process Control  
Chemical Process Technology  
Data Analytics (Power BI)

**PS-II STATION : GRASIM INDUSTRIES LTD - PULP & FIBRE BUSINESS - CRM, MUMBAI**

**FACULTY NAME: ARUN MAITY.**

**STUDENT NAME: AJAYKUMAR KASHAPNOOR (2020B2A82121G)**

Student Write-up

**PS-II Project Title:** Customer Access Portal

**Short Summary of work done during PS-II :** The Practice School-2 project at Grasim Industries revealed critical insights into the organization's technological infrastructure and customer relationship management challenges. The research highlighted several key findings: 1.

Technological Fragmentation: The existing systems suffered from significant information disconnection, with critical business data trapped in isolated ecosystems across different geographical regions. 2. Process Inefficiencies: Manual processes dominated critical areas like customer complaint tracking, order logging, and data management, leading to reduced operational effectiveness and increased expenditure.

**Tool used (Development tools - H/w, S/w) :** Microsoft Power BI, Microsoft Dynamics 365, Asana for Agile Project Management, Jupyter Notebook for Data Analysis

**Objectives of the project :** 1. Website Management of Grasim Industries B2C arm Navyasa. 2. Quality Assessment Power BI Dashboard.

**Major Learning Outcomes :** 1. Organisation Structure of ABG  
2. Business Responsibility and Sustainability Report  
3. E-commerce Website Management  
4. Plant Unit Quality Assessment

**Details of Papers/patents :** Practice School - 2 Report Link :  
<https://docs.google.com/document/d/1z2sSt1qkTrRXC2DPdKh4JfFtK7wIKQtY/edit>

**Brief Description of working environment, expectations from the company :** Multi-national company, Legacy Business of Pulp and Fibre as well as Cellulose. Parent Company to many of the ABG Companies, such as Ultratech Cements Limited, Birla Opus Paints and others. A structured organization focusing on manufacturing, finance, production units, fashion and retail.

**Academic courses relevant to the project :** 1. Principle of Management  
2. Data Science  
3. Polymer Chemistry

**PS-II STATION : GRASIM INDUSTRIES LTD. (CHEMICAL DIVISION) CPW & SBP ,BHARUCH**  
**FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE**  
**STUDENT NAME: ABEL OOMMEN LUKE (2021A1PS2963G)**

Student Write-up

**PS-II Project Title:** Minimisation of moisture and chloride content in brine sludge

**Short Summary of work done during PS-II :** This project focuses on optimizing the handling of brine sludge generated in the chlor-alkali process, specifically at Grasim Industries' chlor-alkali unit, where brine sludge typically contains high levels of moisture (up to 80%) and residual sodium chloride (12–15%). The goal is to reduce both moisture content to 15–20% and chloride content to below 5%, while operating within existing space constraints and improving operational efficiency. The proposed solution involves a three-stage system: a pre-wash stage, a

Volute Screw Press, and a Paddle Dryer. In the first stage, sludge is pre-washed using heated RO or DM water (50–60°C), which dissolves and removes soluble chlorides like NaCl and NaClO<sub>3</sub>. The sludge then undergoes polymer-assisted flocculation, followed by dewatering in a Volute Screw Press, which reduces moisture to ~75% and prepares the cake for final drying. In the last stage, a Paddle Dryer is used to evaporate remaining water and leachable salts, achieving the target dryness and chloride minimization. Various alternatives were compared, including RVDFs and membrane filter presses. While RVDFs offer good washing potential, they require more space and maintenance. The selected Volute Press + Dryer system is continuous, automated, energy- efficient, and fits within the existing footprint. The project also evaluates the role of polymers, hot water, and potential chemical aids for chloride reduction, and includes a complete process flow design, equipment specs, and ROI analysis. This integrated approach offers a sustainable, scalable solution for high-performance sludge treatment in chlor-alkali operations.

**Tool used (Development tools - H/w, S/w) :** Word, excel

**Objectives of the project :** Minimization of moisture and chloride content in brine sludge

**Major Learning Outcomes :** Filtration, equipment for filtration

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** The working environment during my internship was structured yet supportive, fostering both learning and productivity. I was placed in a team where collaboration, safety, and adherence to standard operating procedures were strongly emphasized. Regular team meetings, supervisor check-ins, and well-defined responsibilities helped create a clear workflow. Despite the technical challenges, the team was approachable, and I received timely guidance from my mentor and colleagues, which enhanced my understanding of plant operations and industrial best practices. The company maintained a culture of professionalism, punctuality, and continuous improvement. Safety protocols were strictly followed, and personal protective equipment (PPE) usage was mandatory in operational areas, reflecting the company's commitment to employee well-being.

From the internship, I expected exposure to real-time chemical engineering processes, practical experience in troubleshooting and optimization, and a deeper understanding of industrial-scale operations. I also looked forward to learning how theoretical concepts are applied in real-world scenarios. The company met these expectations effectively, allowing me to contribute meaningfully while gaining invaluable practical insights. This experience has significantly enhanced my technical and interpersonal skills and provided a clearer direction for my professional growth.

**Academic courses relevant to the project :** Mass Transfer, Process Control, Thermodynamics

**PS-II STATION : GRASIM INDUSTRIES LTD. (CHEMICAL DIVISION) ELECTRICAL ,BHARUCH**  
**FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE**  
**STUDENT NAME: RISHABH DAGA (2021A3PS3062H)**

Student Write-up

**PS-II Project Title:** REVALIDATION OF LIGHTNING PROTECTION SYSTEM DESIGN AND IDENTIFICATION OF GAPS

**Short Summary of work done during PS-II :** DURING MY PS-2, I GAINED PRACTICAL EXPERIENCE IN EVALUATING THE EFFECTIVENESS AND COMPLIANCE OF LIGHTNING PROTECTION SYSTEMS (LPS) IN ACCORDANCE WITH RELEVANT STANDARDS. MY WORK INVOLVED ASSESSING THE QUALITY AND DESIGN OF EXISTING SYSTEMS, CALCULATING RISK VALUES TO DETERMINE THE NECESSITY AND ADEQUACY OF LIGHTNING PROTECTION, AND PERFORMING DETAILED CALCULATIONS TO IDENTIFY THE APPROPRIATE NUMBER OF LIGHTNING ARRESTERS AND DOWN CONDUCTORS REQUIRED FOR VARIOUS BUILDING STRUCTURES. THIS HANDS-ON EXPOSURE ENHANCED MY UNDERSTANDING OF RISK ASSESSMENT METHODOLOGIES AND DESIGN PRINCIPLES CRITICAL TO ENSURING SAFETY AND RELIABILITY IN LIGHTNING PROTECTION SYSTEMS.

**Tool used (Development tools - H/w, S/w) :** MATLAB, DESMOS

**Objectives of the project :** DESIGNING AN EFFICIENT LIGHTNING PROTECTION SYSTEM FOR THE PLANT'S INFRASTRUCTURE.

**Major Learning Outcomes :** EVALUATING THE QUALITY OF LIGHTNING PROTECTION SYSTEMS, CALCULATING RISK VALUES, CALCULATION OF NUMBER OF LIGHTNING ARRSTERS AND DOWN CONDUCTORS REQUIRED.

**Details of Papers/patents : N.A.**

**Brief Description of working environment, expectations from the company :** THE WORKING ENVIRONMENT IN THE COMPANY IS VERY GOOD AND ALL THE SENIOR EXECUTIVE AND OFFICIALS ARE VERY FRIENDLY AND HELPFUL.

**Academic courses relevant to the project :** POWER SYSTEMS

**PS-II STATION : GRASIM INDUSTRIES LTD. (CHEMICAL DIVISION) MECHANICAL ,BHARUCH**  
**FACULTYNAME: SANTOSH SOPANRAO KHANDGAVE**  
**STUDENT NAME: RUTVIKKUMAR SHAILESHKUMAR TRIVEDI (2023H1410076G)**

Student Write-up

**PS-II Project Title:** Prevention of corrosion and mitigation in structure

**Short Summary of work done during PS-II :** Got to know about different types of paint system to prevent corrosion

**Tool used (Development tools - H/w, S/w) :** ANSYS

**Objectives of the project :** To increase lifespan of structure

**Major Learning Outcomes :** Paint system and pigment and binders

**Details of Papers/patents :** Na

**Brief Description of working environment, expectations from the company :** guidance given over there was immense

**Academic courses relevant to the project :** Yes

**PS-II STATION :** GRAVITI PHARMA ,HYDERABAD

**FACULTY NAME:** BHARATHI R .

**STUDENT NAME:** AKASH S PATTAR (2023H1060155H)

Student Write-up

**PS-II Project Title:** Design and Development of Special Purpose Machine in Pharmaceutical and Optimise Production

**Short Summary of work done during PS-II :** Worked on Mainly Reverse Engineering Projects and Optimisation of cleaning system.

**Tool used (Development tools - H/w, S/w) :** S/w- Fusion 360, AutoCad, H/w- Fabrication, Sheetmetal.

**Objectives of the project :** Reduce Manual efforts, Improve Efficiency

**Major Learning Outcomes :** Fusion 360, Sheetmetal, Fabrication, Yield Analysis.

**Details of Papers/patents :** No

**Brief Description of working environment, expectations from the company :** NA



**Academic courses relevant to the project :** Product Design and Development

**PS-II STATION: GRAVITI PHARMA ,HYDERABAD**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: KAKARAPARTY KUMARA ADITYA (2023H1410110H)**

Student Write-up

**PS-II Project Title:** Design and development of special purpose machines for operational excellence and productivity improvement

**Short Summary of work done during PS-II :** Design and development of special purpose machines for operational excellence and productivity improvement

**Tool used (Development tools - H/w, S/w) :** Fusion 360

**Objectives of the project :** Productivity Improvement

**Major Learning Outcomes :** Operational excellence

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :**

**Academic courses relevant to the project :** Computer Aided Design and Analysis, Product Design

**PS-II STATION : GREENFINCH GLOBAL CONSULTING-IT ,JAIPUR**

**FACULTY NAME: K VENKATASUBRAMANIAN .**

**STUDENT NAME: KOCHETA PRANAV AMOLKUMAR (2020B4A41859G)**

Student Write-up

**PS-II Project Title:** Case Tracking Dashboard and Valuation Services for Retail Customers

**Short Summary of work done during PS-II :** 1. Tracking Stepwise Efficiency of Field Visit, Drafting, and Approval Processes2. Integrating Services for Retail Customers3. Using AI to Create Service Requests from Emails

**Tool used (Development tools - H/w, S/w) :** Excel,Python,Powerbi,Salesforce

**Objectives of the project :** I worked on optimizing field visits, drafting, and approval workflows; integrating services for retail customers; and automating service request creation from emails using AI.

**Major Learning Outcomes :** Learnt tools like Excel, Power BI, Salesforce etc

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** You have to work on Saturdays as well, but the work is good.

**Academic courses relevant to the project :** Mathematical Modelling, Game theory

**PS-II STATION : GREENFINCH GLOBAL CONSULTING-IT ,JAIPUR**

**FACULTY NAME: K VENKATASUBRAMANIAN .**

**STUDENT NAME: SHREYASH PATEL (2020B5A71157G)**

Student Write-up

**PS-II Project Title:** Streamlining Financial Services with Technology

**Short Summary of work done during PS-II :** I had contributions in designing the wireframes of our digital platform, integrating multiple Fintech APIs, worked on the manpower distribution.

**Tool used (Development tools - H/w, S/w) :** Salesforce, Google API, Python, Figma, Excel

**Objectives of the project :** Build a roadmap for the company to digitalize its services and work on its implementation.

**Major Learning Outcomes :** Salesforce, Python, Operations

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The work environment is encouraging with direct interaction to Founder.

**Academic courses relevant to the project :** CP, LCS

**PS-II STATION : GREENKO GROUP ,HYDERABAD**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA .**

**STUDENT NAME: VISHNU PRIYA (2023H1430028H)**

Student Write-up

**PS-II Project Title:** Assistant professor

**Short Summary of work done during PS-II :** During my PS-II internship at Greenko Group, I was involved in the study and understanding of pumped storage hydropower systems, which are crucial for large-scale energy storage and grid stability. My work focused on the structural and civil engineering aspects of the project. I gained exposure to the design and analysis of major components such as intake structures, penstocks, anchor block, saddle of penstock. Under the guidance of industry mentors, I participated in reviewing design documents, understanding construction methodologies, and analyzing various loading conditions acting on underground structures. I also studied the layout of tunnels and shafts, assessed excavation support systems, and examined methods for slope stability and rock anchoring used in hilly terrains. Additionally, I learned about the integration of geotechnical investigations in design decisions and observed the use of project management tools to monitor construction progress. I had the opportunity to visit the project site, which provided hands-on experience in real-time construction activities and safety practices. Overall, this internship enhanced my understanding of multidisciplinary coordination in large-scale hydro projects, improved my technical and analytical skills, and deepened my appreciation for renewable energy infrastructure development.

**Tool used (Development tools - H/w, S/w) :** StaadPro, AutoCAD

**Objectives of the project :** Peer view and retrofitting work of pumping storage projects

**Major Learning Outcomes :** Understanding of Pumped Storage Hydropower Systems, Exposure to Large-Scale Infrastructure Projects, Structural Analysis and Design Insight, Use of Software and Technical Tools, Project Management and Coordination.

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment at Greenko Group during my PS-II internship was highly professional, collaborative, and conducive to learning. The company maintains a structured and goal-oriented approach to project execution, especially in technically intensive domains like pumped storage hydropower. I was part of a multidisciplinary team comprising structural engineers, geotechnical experts, and project managers, which provided an excellent opportunity to observe how different engineering domains integrate in real-world scenarios.

Greenko emphasized safety, quality, and innovation, which reflected in their rigorous design validation processes and site supervision standards. Interns were encouraged to take initiative, ask questions, and engage in discussions with experienced professionals. The company

maintained a good balance between technical training and field exposure, which helped bridge the gap between academic knowledge and practical application.

Expectations from interns were clearly communicated. We were expected to be proactive, punctual, and eager to learn. Critical thinking and opportunity-solving were encouraged, especially when reviewing technical drawings, analyzing design reports, or observing construction methods. A strong emphasis was placed on understanding the environmental and sustainability aspects of large-scale infrastructure projects, aligning with Greenko's vision for renewable energy development.

Overall, the company provided a supportive and challenging environment that helped me grow both technically and professionally, while instilling a sense of responsibility toward nation- building through sustainable energy solutions.

**Academic courses relevant to the project : Yes.**

**PS-II STATION : GUARDIAN LIFE INSURANCE COMPANY, CHENNAI ,CHENNAI**

**FACULTY NAME: RAMESH VENKATRAMAN .**

**STUDENT NAME: ROHIT YALAVARTHY (2021A8PS2294H)**

Student Write-up

**PS-II Project Title: Chetna : AI product for text analytics**

**Short Summary of work done during PS-II :** During my Practice School-II internship at Guardian Life, Chennai, I conceptualized and developed Chetna, an end-to-end agentic AI product for automating feedback analysis and reporting. The core aim was to replace a highly manual and time-intensive process—taking 66 hours monthly—with an intelligent solution leveraging machine learning, natural language processing, and automation. The original workflow involved manually collating feedback from various sources, performing sentiment analysis, categorizing feedback into themes, and generating a PowerPoint presentation for monthly review. I created supervised ML models (including Random Forest, Logistic Regression, XGBoost, and LGBM) to predict sentiments and thematic buckets with accuracies exceeding 90%. I further improved results using large language models (LLMs) and built an agentic AI system that produced actionable business recommendations. These were visualized using a dynamic Tableau dashboard. The final deployment strategy involves seamless integration with SharePoint, S3, AWS RDS, and Databricks, allowing the business team to continue receiving updates as before but with complete automation. This project became Guardian's first agentic AI deployment and earned top-level recognition, including a commendation from the COO. The system is scalable, robust, and already creating measurable business value.

**Tool used (Development tools - H/w, S/w) : Python, CrewAI, AWS, Tableau**

**Objectives of the project : Build an end to end AI product capable of advanced text analytics.**

**Major Learning Outcomes :** Learnt about the business level processes as well as the present inefficiencies in them. Leverages learnings to build an AI-driven solution along with appropriate value adds capable of dispersing maximum value.

#### **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working conditions at Guardian Life's Chennai office were highly conducive to learning, innovation, and collaboration. I was embedded within the Data & AI division and worked closely with both technical and business stakeholders. My immediate mentors, Mr. Ravi Ajmera (Head, Data & AI) and Mr. Rupesh Khare (Head, Data Analytics), provided continuous support and strategic direction, fostering a culture of ownership and experimentation. The organization encouraged autonomy in project execution, allowing me the freedom to explore and iterate various ML and LLM approaches without micromanagement. Infrastructure-wise, I had access to powerful computational resources via Databricks and AWS, facilitating large-scale data processing and model deployment. Despite occasional challenges like access limitations to LLMs and inconsistent data formats, the collaborative atmosphere enabled effective opportunity-solving. Regular reviews and brainstorming sessions helped refine both the technical implementation and business impact. The supportive work culture was exemplified by transparent communication, responsiveness to suggestions, and recognition of achievements—culminating in our team receiving the “Cheers for Champions” commendation from the COO. Overall, the internship experience combined technical rigor with a high degree of professional trust, enabling me to deliver a meaningful and recognized solution in a real-world enterprise setting.

**Academic courses relevant to the project :** ML, AI, Effective Public Speaking

#### **PS-II STATION: GUARDIAN LIFE INSURANCE COMPANY, GURGAON**

**FACULTY NAME:** RAMESH VENKATRAMAN .

**STUDENT NAME:** KULKARNI ANISH SHAILESH (2020B1A42416H)

Student Write-up

#### **PS-II Project Title:** Premium Persistency Analysis for Life Insurance

**Short Summary of work done during PS-II :** I developed a structured approach to revisiting and improving existing opportunity-solving models. Rather than starting from scratch, I begin by critically analyzing the original model to understand its structure, underlying assumptions, and points of failure. This process helps uncover design flaws or gaps in logic that may have contributed to poor performance or incorrect outcomes. Based on these insights, I redesign the model with relevant improvements and align it with business objectives through validation

sessions with key stakeholders. I then perform hypothesis testing to confirm the soundness of the updated framework before applying suitable machine learning techniques. This method ensures that any predictive modeling or automation efforts are grounded in business context, data integrity, and technical rigor.

**Tool used (Development tools - H/w, S/w) :** Alteryx,SQL,Pyspark

**Objectives of the project :** To Analyze persistency of collected Premiums at a monthly level and identify which financial factors affect the corresponding general ledger.

**Major Learning Outcomes :** I learned how to approach previously solved opportunities by reverse-engineering existing models to identify flaws and understand the reasons behind their failure. This involves making relevant modifications, validating changes with the business team.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** I've had the opportunity to work in an environment where collaboration and mutual support are truly valued. The team culture encourages asking questions, sharing knowledge, and stepping in to help one another when needed. This kind of atmosphere not only makes day-to-day work more enjoyable, but also accelerates learning and growth. It's motivating to be surrounded by people who are approachable, skilled, and invested in collective success — it fosters a sense of belonging and makes you want to give your best every day.

**Academic courses relevant to the project :** Yes

**PS-II STATION : GUARDIAN LIFE INSURANCE COMPANY, GURGAON**

**FACULTY NAME: RAMESH VENKATRAMAN .**

**STUDENT NAME: CHINMAY ANAND (2020B3A70776H)**

Student Write-up

**PS-II Project Title:** Due and Unpaid Premium Analysis

**Short Summary of work done during PS-II :** Worked on 2 projects. Due and Unpaid Premiums and Premium Persistency Analysis. Started first with getting basic understanding of the insurance sector and then the business requirements of my project in general. Started figuring out which tools are to be used for the project. Once done, worked with XGBoost models for time series analysis. Worked with KMeans clustering for customer segmentation. Automated multiple alteryx workflow in pyspark.Also made tableau dashboards

**Tool used (Development tools - H/w, S/w) :** PySpark, Tableau, pandas, XGBoost, matplotlib, pandas, streamlit, Alteryx, SQL, Databricks, Presentation skills, Storytelling

**Objectives of the project :** 1. To reduce due and unpaid premiums by figuring out specific kind of plan holders

**Major Learning Outcomes :** When working on a very large scale data with multiple tables to be used making the final data rectangle, work on the understanding the business requirements first of all before jumping into anything to do with the data.

**Details of Papers/patents :** No paper/patent involved

**Brief Description of working environment, expectations from the company :** It was good working environment. People were helpful and it was not that demanding building connections with people

**Academic courses relevant to the project :** Machine Learning, Natural Language Processing, Information Retrieval, Data Mining, Econometrics

**PS-II STATION : GUARDIAN LIFE INSURANCE COMPANY, GURGAON**

**FACULTY NAME: RAMESH VENKATRAMAN .**

**STUDENT NAME: AAYUSH KUMAR SINGH (2021A7PS0430H)**

Student Write-up

**PS-II Project Title:** Enrollment Volume Forecasting, EOI Bot Data Enablement

**Short Summary of work done during PS-II :** SQL queries for connecting a bot to SQL tables. Time Series forecasting for volume prediction at hourly, daily level.

**Tool used (Development tools - H/w, S/w) :** Databricks, SQL, Prophet, Python, MLFlow, XGBoost

**Objectives of the project :** SQL query optimization and Time Series Prediction

**Major Learning Outcomes :** SQL Joins

Time Series Prediction

Basic Excel MLFlow

Databricks

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Flexible working hours, 2 days work from home but interns are advised to be WFO for all 5 days. Incubatory projects provide a good learning experience.

**Academic courses relevant to the project :** Foundation of Data Science  
Machine Learning

**PS-II STATION : HARMAN DTS ,BENGALURU**

**FACULTY NAME: SHREYAS SURESH RAO .**

**STUDENT NAME: SHIKHAR SRIVASTAVA . (2020B1A40656P)**

Student Write-up

**PS-II Project Title:** Cybersecurity Risk Assessment using Generative AI

**Short Summary of work done during PS-II :** Developed a platform using Django, Streamlit and React to take customer cybersecurity implementation evidence and analyze it to provide a comprehensive analysis of the cybersecurity compliance status and risk of the organization.

**Tool used (Development tools - H/w, S/w) :** PyCharm, Git, Github

**Objectives of the project :** To reduce manual intervention required to validate security controls by analyzing evidence data using Generative AI.

**Major Learning Outcomes :** Backend development using Django, Postgres & RAG using Vector DB

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Working environment is quite good. We can approach to seniors anytime.

**Academic courses relevant to the project :** OOPS

**PS-II STATION : HARMAN DTS ,BENGALURU**

**FACULTY NAME: SHREYAS SURESH RAO .**

**STUDENT NAME: SRIBHASHYAM SESA SAI SRIKAR (2020B4A40856H)**

Student Write-up

**PS-II Project Title:** Domain Specific Agentic Systems

**Short Summary of work done during PS-II :** Engineered a Browser Automation Agentic System and Desktop Automation Agentic system for our Product- Genesis, Concrete Research work was done involving DOM, Self-Healing agents. • Developed a DOM Distiller, Testing Harness for Browser agent, enabling structured extraction of web elements and comprehensive functionality validation and Built a Desktop Automation Agentic System for Windows Applications utilizing AutoGen, Playwright, Selenium, WinAppDriver and GPT-4o. • Built a Code-Generation Agentic



System to generate individual test files using logs of agentic execution, Initially developed for Python and later extended to multiple languages using Graphflow (directed graph agents).

**Tool used (Development tools - H/w, S/w) :** autogen , python , agents

**Objectives of the project :** To build scalable agentic systems for our product Genensos

**Major Learning Outcomes :** Learned about building agents (autogen , python , Langchain) and test automation (selenium , python) as our product is agentic software QA.

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :**

I learned how to collaborate with people from different backgrounds and adapt my communication style to ensure smooth teamwork and productivity.

**Academic courses relevant to the project :** OOPS , AI , ML , DL , DSA.

**PS-II STATION :** HARNESS.IO , BENGALURU

**FACULTY NAME:** AKANKSHA BHARADWAJ .

**STUDENT NAME:** SHASHANK RANA (2021A7PS2671G)

Student Write-up

**PS-II Project Title:** Moved long running compute to serverless

**Short Summary of work done during PS-II :** So right now we have some long running jobs in back end which were earlier running on our K8S cluster. I moved them to serverless offering of AWS - AWS Batch. This included translating orchestration code from py to ts.

**Tool used (Development tools - H/w, S/w) :** Serverless compute, ts, python, k8s

**Objectives of the project :** moving long running compute to serverless

**Major Learning Outcomes :** Got to know how corp works, writing reviewable code

**Details of Papers/patents :** N/A

**Brief Description of working environment, expectations from the company :** Work was great, it was a small team, had to work independently. Expectations were high, so was the work. This - I see as a great learning, got to know a lot of things which you only learn after burning your fingers.

**Academic courses relevant to the project :** OOPs, Compilers, OS

**PS-II STATION : HONEYWELL ,GURGAON**

**FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE**

**STUDENT NAME: PRIYESH TONGARIA (2021A1PS2966G)**

Student Write-up

**PS-II Project Title:** Customer Success

**Short Summary of work done during PS-II :** Customer Troubleshooting and Technology Discussions

**Tool used (Development tools - H/w, S/w) :** Excel Powerpoint Seeq

**Objectives of the project :** Customer Troubleshooting

**Major Learning Outcomes :** Process Flow

**Details of Papers/patents :** N/A

**Brief Description of working environment, expectations from the company :** Great Environment

**Academic courses relevant to the project :** KRD, HT , FM , MT , PED

**PS-II STATION : HSBC - ANALYST ,GURGAON**

**FACULTY NAME: SIDHARTH MISHRA .**

**STUDENT NAME: DHRUV TULI (2020B2A82042G)**

Student Write-up

**PS-II Project Title:** Workforce Strategy and Insights analyst intern

**Short Summary of work done during PS-II :** Worked on tracking of restructuring and exits. Used advanced excel, SQL and python for the same.. Developed Power BI dashboards and used figma to enhance UX design of them.

**Tool used (Development tools - H/w, S/w) :** Power BI, Figma, SQL, Python

**Objectives of the project :** Restructuring and Exit Tracking, Innovating new products (Power BI) and web apps

**Major Learning Outcomes :** Power BI, Figma, SQL, Python

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Working environment was very accommodating. One of the best. The team was very welcoming and onboarding was very structured.

**Academic courses relevant to the project :** Principles of Management, Professional ethics, Creative thinking

**PS-II STATION : HSBC - ANALYST ,GURGAON**

**FACULTY NAME:** SIDHARTH MISHRA .

**STUDENT NAME:** SAHITHI GOPARAJU (2020B3A40647H)

Student Write-up

**PS-II Project Title:** WSI Analyst Intern

**Short Summary of work done during PS-II :** Worked on re platforming strategy development. Created tools to compare data from previous pipeline with data in the new pipeline.

**Tool used (Development tools - H/w, S/w) :** Power BI, Python

**Objectives of the project :** To leverage visualization and Analytics tools

**Major Learning Outcomes :** Learned domain knowledge, visualization

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Working environment is positive, conducive to learn and grow. Expectations are to be timely with projects and proactive.

**Academic courses relevant to the project : Yes**

**PS-II STATION : HSBC - ANALYST ,GURGAON**

**FACULTY NAME:** SIDHARTH MISHRA .

**STUDENT NAME:** SAKAR HIRDE (2021A3PS3203H)

## **PS-II Project Title: Killer-MI Reporting**

**Short Summary of work done during PS-II :** As part of the Killer-MI project during my internship at HSBC's People Insights team, I was responsible for generating and automating the Monthly MI reports at both the Group and Business Function levels. These reports captured key workforce metrics such as headcount, FTE, and cost projections. Initially, the reports relied heavily on manually run Python scripts, with limited reusability and inconsistent mapping logic. I began by analyzing the existing report structure, identifying gaps in automation, and understanding the stakeholder requirements. One of my first contributions involved enhancing the logic for monthly YTD and Projection calculations and aligning them with business expectations. I replaced outdated mapping logic with a more reliable version, reducing inaccuracies and improving reporting quality. To optimize efficiency, I modularized repetitive code blocks and created a semi-automated pipeline using Python and Excel. This pipeline allowed for faster report creation and easier updates based on new data inputs. Additionally, I developed custom graphs and visualizations to better represent the data, making the reports more intuitive and decision-ready. Throughout the project, I collaborated closely with mentors and business stakeholders, incorporating iterative feedback to ensure the deliverables met expectations. By the end of my internship, the Killer-MI reporting process had significantly reduced manual effort, improved accuracy, and became more aligned with HSBC's global MI standards.

**Tool used (Development tools - H/w, S/w) :** R Studio, Python, R, VS Code, Excel, PowerPoint, jupyter environment, company tools for data extraction.

**Objectives of the project :** The primary objective of the Killer-MI project was to generate monthly Group-Level and Business Function-Level Management Information (MI) packs that reported key workforce metrics such as headcount, cost, and FTE. The project aimed to automate manual elements of the reporting process using Python and Excel to improve efficiency, accuracy, and scalability. Another core goal was to align deliverables with stakeholder expectations by incorporating their feedback and enhancing logic for mapping, projections, and metric consistency. Ultimately, the project sought to support strategic workforce planning and service delivery decisions through timely, data-driven insights.

**Major Learning Outcomes** During the project, I gained a deep understanding of how corporate HR analytics functions, particularly in generating and maintaining MI reports. I enhanced my technical skills in Python scripting, Excel automation, and logic development for YTD and Projection calculations. The experience also strengthened my stakeholder communication and iteration skills, as I worked through multiple rounds of feedback to refine outputs. Additionally, I developed a practical understanding of workforce metrics and how they are applied in high-level decision-making. Overall, the project improved my coding proficiency, opportunity-solving capabilities, and familiarity with end-to-end reporting in a professional analytics environment.

**Major Learning Outcomes :** During the project, I gained a deep understanding of how corporate HR analytics functions, particularly in generating and maintaining MI reports. I enhanced my technical skills in Python scripting, Excel automation, and logic development for YTD and Proje

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** My internship experience at HSBC was marked by a highly positive and collaborative work environment. The culture was open and inclusive, with a strong emphasis on knowledge sharing. Team members across levels were approachable and always willing to help, which created a smooth and supportive learning experience. This openness greatly accelerated my understanding of tools, reporting logic, and stakeholder expectations.

The support from seniors and mentors was exceptional. They were welcoming, patient, and understanding, making it easy to adapt and contribute effectively. Regular sync-ups and review sessions were conducted to align on project goals, address challenges, and ensure continuous improvement. These structured interactions not only helped clarify expectations but also provided timely feedback, which was crucial in delivering high-quality work.

HSBC set clear expectations around ownership, accountability, and professionalism. Interns were encouraged to take initiative, solve opportunities independently, and refine deliverables through iteration. While guidance was readily available, there was also a strong sense of trust placed in us to deliver meaningful outcomes. This balance of support and responsibility helped me grow both technically and professionally. Overall, the work environment was dynamic, respectful, and growth-oriented—making it an ideal setting for learning and contributing meaningfully.

**Academic courses relevant to the project : Yes**

**PS-II STATION : HSBC - ANALYST ,GURGAON**

**FACULTY NAME: SIDHARTH MISHRA .**

**STUDENT NAME: YUVRAJ PRATHAM (2021A8PS3122H)**

Student Write-up

**PS-II Project Title:** Decision System

**Short Summary of work done during PS-II :** It was more towards Software Development side rather than Analytics .

**Tool used (Development tools - H/w, S/w) :** Vscode , Git ,Jenkins,GCP , AWS

**Objectives of the project :** Development of in-house applications

**Major Learning Outcomes :** Python , AST,LIBCST

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Best working Environment...helpful people .. Positive attitude

**Academic courses relevant to the project :** DSA , OOPS,ML, OS

**PS-II STATION : HSBC - ANALYST ,GURGAON**

**FACULTY NAME: SIDHARTH MISHRA .**

**STUDENT NAME: ABHISHEK KUMAR (2023H1540822P)**

Student Write-up

**PS-II Project Title:** Improving Liquidity Reporting and Workflow Automation in Financial Operations

**Short Summary of work done during PS-II :** During my PS-II internship at HSBC under the FinOps COO department, I worked on automation and optimization of finance-related processes to improve operational efficiency and reporting accuracy. My primary focus was to reduce manual intervention in recurring financial tasks using VBA and Python. I successfully automated multiple processes, including consolidation of journal entries, gather site submissions, and regulatory reporting for MREL and AMM 2A & 2B, leading to significant time savings and reduced compliance risks. Additionally, I designed and maintained interactive dashboards to enhance task tracking and visibility for leadership. One of the key projects involved building an Appian- based dashboard tracker, which eliminated the need for manual updates across multiple entities and improved transparency. I also supported the Liquidity team with task documentation, daily operations, and coordination of regulatory submissions. Throughout the internship, I closely collaborated with different teams to understand pain points and deliver tailored solutions. My work contributed to streamlining legacy processes, standardizing documentation, and promoting scalable automation for logic-based finance tasks. The experience not only enhanced my technical proficiency in automation and dashboarding tools but also deepened my understanding of financial operations within a global banking environment. It reinforced the importance of opportunity-solving, stakeholder communication, and agility when working with complex financial systems.

**Tool used (Development tools - H/w, S/w) :** S/w - VBA, Python, EXCEL, XCEPTOR, SARACEN

**Objectives of the project :** To streamline and enhance financial operations by automating manual processes, improving regulatory reporting accuracy, and increasing operational visibility through

the development of dashboards and data-driven tools. The project aims to reduce manual intervention, improve efficiency, and support scalable solutions for recurring finance tasks within the FinOps COO department at HSBC

**Major Learning Outcomes :** Learned to automate financial processes using VBA and Python, enhancing efficiency and accuracy in regulatory reporting.  
Gained practical exposure to liquidity reporting, dashboarding, and cross-functional collaboration in a global finance environment.

**Details of Papers/patents : n/a**

**Brief Description of working environment, expectations from the company :** The working environment at HSBC was highly professional, collaborative, and structured around delivering efficiency and compliance in financial operations. As part of the FinOps COO department, I had the opportunity to work alongside experienced professionals who encouraged continuous learning and supported my contributions toward process automation and operational improvement.

The culture promoted accountability, agility, and a strong emphasis on data accuracy and security. Daily stand-ups, weekly reviews, and open communication channels with my manager and buddy provided clarity on expectations and project deliverables. Despite the remote and hybrid nature of the work, I always felt connected with the team, thanks to regular sync-ups and knowledge-sharing sessions.

The company expected interns to take ownership of their assigned tasks, meet deadlines, and contribute meaningfully to ongoing projects. A strong emphasis was placed on proactive opportunity-solving, attention to detail, and understanding the broader business impact of each task. Adaptability and quick learning were essential, especially when working with legacy systems and regulatory processes.

HSBC fostered a learning-oriented environment where feedback was constructive, and support was always available. This enabled me to upskill in automation tools, improve my domain knowledge in finance, and gain real-world exposure to the workings of a global bank.

**Academic courses relevant to the project :** Finance, excel for business, and other analytics subject were relevant here

**PS-II STATION : HSBC - ANALYST ,GURGAON**

**FACULTY NAME: SIDHARTH MISHRA .**

**STUDENT NAME: SHUBHANGI AGGARWAL (2023H1540823P)**

Student Write-up

**PS-II Project Title: FinOps**

**Short Summary of work done during PS-II :** • Supporting the COO in strategic decision-making by analyzing cost drivers and headcount metrics business function wise. • Taking ownership of weekly BAU activities post-handover phase, including stakeholder reporting, variance analysis, and headcount tracking across locations and regions. • Contributing to cost optimization and hiring advocacy processes by preparing executive-ready dashboards and insights aligned with business priorities.

**Tool used (Development tools - H/w, S/w) :** Excel, OLAP tool

**Objectives of the project :** Supporting the COO in strategic decision-making by analyzing cost drivers and headcount metrics business function wise.

**Major Learning Outcomes :** Supporting the COO in strategic decision-making by analyzing cost drivers and headcount metrics business function wise.

**Details of Papers/patents :** N/A

**Brief Description of working environment, expectations from the company :** Encouraging, supportive environment and employee friendly.

**Academic courses relevant to the project :** Finance, Corporate Finance, Excel, Python

**PS-II STATION :** HSBC - ANALYST ,GURGAON

**FACULTY NAME:** SIDHARTH MISHRA .

**STUDENT NAME:** KARTHIK THILAKAN E (2023H1540862P)

Student Write-up

**PS-II Project Title:** Cost Reporting - Boundary Change Activity

**Short Summary of work done during PS-II :** Assisted in consolidation of boundary change journals and validating the approval and consolidation of approval for the timely completion of BC activities in each cycle.

**Tool used (Development tools - H/w, S/w) :** Excel

**Objectives of the project :** Assist the cost reporting team in boundary change activities with journal and approval consolidation

**Major Learning Outcomes :** Microsoft Excel and it's shortcuts



**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Hybrid working and attention to detail required in journal consolidation with zero errors. Validation of approval requires keen attention and intuition to make sure the right approval is in place and systematic consolidation of approval for future verification and reference.

**Academic courses relevant to the project :** Financial Accounting

**PS-II STATION : HSBC - ANALYST ,GURGAON**

**FACULTY NAME: SIDHARTH MISHRA .**

**STUDENT NAME: M V S SRI SATHVIKA (2023H1540864P)**

Student Write-up

**PS-II Project Title:** Sales MI Reporting

**Short Summary of work done during PS-II :** The project focused on streamlining Sales MI (Management Information) reporting processes for enhanced decision-making. It involved preparing and delivering daily, weekly, and monthly reports covering trade-level sales data across APAC, EMEA, and Americas regions. Key responsibilities included conducting daily checks using the sales dashboard, identifying and reconciling data discrepancies, and delivering weekly performance commentary highlighting trends, spikes, and year-over-year (YoY) comparisons. Monthly reports were generated for various global markets to support senior leadership with insights into performance and opportunities. A significant part of the project was the automation of repetitive tasks using Excel VBA, reducing manual effort and improving turnaround time. Reports were visualized and tracked using QlikSense dashboards for real-time insights. The role also involved reconciling QlikSense outputs with raw data to ensure accuracy and consistency. Overall, the work contributed to improving the efficiency, accuracy, and insightfulness of sales reporting, enabling better strategic decisions.

**Tool used (Development tools - H/w, S/w) :** Excel, QlikSense, Python

**Objectives of the project :** To automate sales data reporting and deliver accurate, timely insights for business decision-making across global regions.

**Major Learning Outcomes :** Through this project, I gained hands-on experience in data analysis, automated sales reporting using Excel VBA, and worked with QlikSense dashboards for performance tracking. I improved my ability to generate timely and accurate reports, coordinated data.

**Details of Papers/patents :** Not Applicable

**Brief Description of working environment, expectations from the company :** At HSBC, the working environment is professional, collaborative, and performance-oriented. The company promotes a culture of integrity, continuous learning, and innovation. During the project, I was part of the Sales MI and FinOps team, where I worked closely with global teams across APAC, EMEA, and the Americas.

The work setting was structured, yet flexible, allowing space for independent ownership of tasks while encouraging cross-functional coordination. Emphasis was placed on timely and accurate delivery of reports, including daily sales checks, weekly performance commentary, and monthly business reviews. The use of tools like Excel VBA and QlikSense was integral to automate tasks and ensure efficient reporting.

HSBC expected attention to detail, strong analytical thinking, and proactive communication. Deliverables needed to meet high standards of accuracy and consistency, as they were often reviewed by senior leadership for key business decisions. Resolving data discrepancies and maintaining alignment between raw and dashboard data were critical tasks.

There was also a strong focus on automation, with expectations to reduce manual efforts and optimize reporting processes through macros and scripting.

Overall, HSBC provided a supportive environment that valued precision, accountability, and innovation, fostering both technical and professional development.

**Academic courses relevant to the project :** Financial Analytics, Data Visualization, Excel

**PS-II STATION : IBM ,BENGALURU**

**FACULTY NAME: REDDY RANI VANGIMALLA .**

**STUDENT NAME: RACHOITA DAS . (2021A7PS2002P)**

Student Write-up

**PS-II Project Title:** Custom UI Dashboard for Red Hat OpenStack Platform

**Short Summary of work done during PS-II :** This project is concerned with improving the custom UI for Red Hat OpenStack Platform by implementing new features and solving existing opportunitys, based on user request.

**Tool used (Development tools - H/w, S/w) :** Vue.js, Git, VS Code, Red Hat OpenStack

**Objectives of the project :** Improving the custom UI of the Red Hat OpenStack Platform for users to perform tasks faster and more efficiently

**Major Learning Outcomes :** 1) Time management skills  
2) Communication skills  
3) Experience working with Vue.js  
4) Experience working with Red Hat OpenStack

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment is extremely healthy, and fosters a need for continuous improvement and learning. At IBM, I was expected to learn well and then implement a task. If I didn't understand a concept, there were always people available to explain it to me. This helped me perform much better than I would have otherwise.

**Academic courses relevant to the project :** DSA, MuP, OS

**PS-II STATION : IBM ,BENGALURU**

**FACULTY NAME: REDDY RANI VANGIMALLA .**

**STUDENT NAME: SANSHRAV ARORA . (2021A7PS2690P)**

Student Write-up

**PS-II Project Title:** Compiler Development

**Short Summary of work done during PS-II :** o Analyzed and resolved test failures in the sTR compiler. o Successfully fixed several regressions that were accepted into production builds. o Contributed to long-term compiler stability through systematic debugging and log analysis. o Created detailed technical documentation for environment setup, test execution, and common failure scenarios, significantly reducing onboarding time for new team members.

**Tool used (Development tools - H/w, S/w) :** • Backend: Spring Boot • Frontend: React.js • Database: PostgreSQL • Version Control: Git • Platforms: Linux • Languages: Java, JavaScript, C++, PL/X, COBOL • Internal Tools: IBM's sTR Compiler, IBM-tools infrastructure

**Objectives of the project :** Main the IBM Z's mainframe compiler for PL/X, PL/I, COBOL, ABO

**Major Learning Outcomes :** Full-Stack Web Development in an Enterprise Context, . Systems Programming & Compiler Development, Production-Grade Debugging and Quality Assurance

**Details of Papers/patents : none**

**Brief Description of working environment, expectations from the company :** My internship at IBM provided an engaging and growth-oriented environment marked by technical challenges, strong mentorship, and collaborative work culture. I was part of the zCompilers Team, where I worked on debugging and fixing regressions in IBM's sTR compiler and contributed to internal tools through full-stack development.

The work culture was professional yet approachable. I was trusted with responsibilities typically given to full-time engineers, such as contributing to production-level code and presenting internal demos. Regular guidance from mentors, paired with peer collaboration, enabled a steady learning curve and encouraged initiative.

IBM maintained a structured yet flexible approach to work. Agile practices, weekly syncs, and feedback sessions ensured clarity in goals and continuous improvement. I was encouraged to document my work thoroughly and follow industry-grade development practices, which helped me build habits essential for long-term software engineering success.

My expectations from the company were clear: a space that values learning, allows meaningful contributions, and supports professional development. IBM met these expectations by assigning impactful tasks, promoting curiosity-driven projects, and providing access to internal tools and expert insights.

The team fostered a supportive environment where collaboration, learning, and experimentation were welcomed. I was able to deepen my technical skills in systems programming and full-stack development while gaining exposure to real-world production workflows.

Overall, the experience aligned perfectly with my academic objectives and future aspirations, and I leave with a strong foundation and motivation to grow further in system-level software engineering.

**Academic courses relevant to the project :** compiler construction

**PS-II STATION : IBM ,BENGALURU**

**FACULTY NAME: REDDY RANI VANGIMALLA .**

**STUDENT NAME: ANSHUMAN PANDA (2023H1120183P)**

Student Write-up

**PS-II Project Title:** Export client SAN Configuration & replicate in development environment

**Short Summary of work done during PS-II :** It is impossible to validate every storage device available in the market. Since clients have the flexibility to choose their own storage systems, they often encounter aspects, such as the mainframe being unable to reach storage volumes. In such cases, they reach out to the IBM team for troubleshooting. After the sale of a mainframe system, IBM does not retain any access to the client's data, whether via APIs or any other method. When debugging FCP storage group sensing and fulfillment aspects, we frequently lack critical information about the client's storage (SAN) configuration. As a result, we must request multiple

logs and configuration details from the client. Since all relevant data is available in DPM, we can implement functionality to export the necessary storage configuration data. This exported data can be used to create mocks and replicate the customer's SAN configuration in our development systems or zFOCS (tool to simulate mainframe systems). This feature would be accessible via both the UI and API, providing greater flexibility for troubleshooting and testing.

**Tool used (Development tools - H/w, S/w) :** Software Used - IntelliJ IDEA, VS Code, Database - PostgreSQL, Languages - Java 17, Kotlin, Communication - gRPC

**Objectives of the project :** To ease debugging storage group aspects faced by clients of IBM Mainframe machine.

**Major Learning Outcomes :** Gained an understanding of how DPM manages LPARs.  
Understood the process of creating and fulfilling storage groups.  
Acquired hands-on experience with DPM APIs for programmatic interaction with DPM.  
Learned about how communication occurs between the sys

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** We have very friendly & relaxed atmosphere.

We have an open culture here where one can approach senior leadership easily. Mentors & colleagues are supportive.

**Academic courses relevant to the project :** Cloud Computing, Advanced Operating Systems.

**PS-II STATION : IBM ,BENGALURU**

**FACULTY NAME: REDDY RANI VANGIMALLA .**

**STUDENT NAME: SHIVENDRA PRATAP (2023H1230178P)**

Student Write-up

**PS-II Project Title:** Understanding and optimization of Icache

**Short Summary of work done during PS-II :** I have worked on 3 major project during my internship period :1) designing a complex timer ,2)optimising Daxpy kernel for TDP measurement  
3) microarchitecture of icache

**Tool used (Development tools - H/w, S/w) :** Vivado,Linux terminal and other IBM's internal tools

**Objectives of the project :** Understand the microarchitecture of Icache

**Major Learning Outcomes :** Gained deep understanding of computer architecture

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Working Environment is great and quite healthy.

**Academic courses relevant to the project :** Verilog and VLSI Architecture

**PS-II STATION : ICT,NEW DELHI ,NEW DELHI**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA .**

**STUDENT NAME: SUMANTA DAS (2023H1300054P)**

Student Write-up

**PS-II Project Title:** Highway construction with compliance of IRC codes, highway survey, traffic survey and pavement design.

**Short Summary of work done during PS-II :** This report presents a comprehensive analysis of highway design, traffic studies, pavement management, and geotechnical considerations. It is based on our internship experience with Intercontinental Consultants and Technocrats Ltd., New Delhi. The study covers geometric design principles, technical reports, feasibility assessments, environmental impacts, hydrological evaluations, bridge engineering, traffic forecasting, and pavement construction methodologies. The report elaborates on the application of Autodesk Civil 3D software for highway design in accordance with the Indian Roads Congress (IRC) standards for ensuring road safety and efficiency. Traffic studies focus on dynamic traffic analysis, axle load surveys, origin-destination studies, and forecasting techniques to enhance road network planning. The report also highlights pavement management strategies, including empirical and mechanistic-empirical design methods, layer composition, and distress analysis using IITPAVE software. Along with the above, cost estimation principles, rate analysis methodologies, and construction economics are examined, reinforcing the importance of accurate financial planning in transportation engineering. The insights gained through this internship emphasize the role of data-driven decision-making in creating efficient and sustainable road infrastructure. The study serves as a valuable resource for understanding highway planning, design, and implementation, offering real-world applications of engineering principles in transportation development.

**Tool used (Development tools - H/w, S/w) :** Civil3D, Google Earth Pro, QGIS ,MS Excel.

**Objectives of the project :** Design of complete highway alignment with traffic and pavement design considering IRC codes and it's design criteria.

**Major Learning Outcomes :** Highway alignment design, traffic data analysis, pavement design, quantity survey and cost estimation.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Working Environment is good. Fresher Friendly ofcourse. Every senior is helpful during internship period. Expected to have some opportunity to showcase skill and enthusiasm for highway design.

**Academic courses relevant to the project :** Highway geometric design, pavement design and analysis , pavement failure evaluation and rehabilitation, Traffic system analysis , transportation planning.

**PS-II STATION : ICT,NEW DELHI**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA .**

**STUDENT NAME: BHUMARAJU SAI VISHNU (2023H1300055P)**

Student Write-up

**PS-II Project Title:** Traffic Studies and Data Analysis along with the pavement analysis for the alternative alignment.

**Short Summary of work done during PS-II :** This report presents a comprehensive analysis of highway design, traffic studies, pavement management, and geotechnical considerations. It is based on our internship experience with Intercontinental Consultants and Technocrats Ltd., New Delhi. The study covers geometric design principles, technical reports, feasibility assessments, environmental impacts, hydrological evaluations, bridge engineering, traffic forecasting, and pavement construction methodologies. The report elaborates on the application of Autodesk Civil 3D software for highway design in accordance with the Indian Roads Congress (IRC) standards for ensuring road safety and efficiency. Traffic studies focus on dynamic traffic analysis, axle load surveys, origin-destination studies, and forecasting techniques to enhance road network planning. The report also highlights pavement management strategies, including empirical and mechanistic-empirical design methods, layer composition, and distress analysis using IITPAVE software. Along with the above, cost estimation principles, rate analysis methodologies, and construction economics are examined, reinforcing the importance of accurate financial planning in transportation engineering. The insights gained through this internship emphasize the role of data-driven decision-making in creating efficient and sustainable road infrastructure. The study serves as a valuable resource for understanding highway planning, design, and implementation, offering real world applications of engineering principles in transportation development.

**Tool used (Development tools - H/w, S/w) :** Civil 3D, Google Earth Pro, MS Excel, IITPAVE

**Objectives of the project :** To create an alternative alignment. Perform the traffic forecasting and analysis of the pavement with different layers.

**Major Learning Outcomes :** During the course of 5 months, we have to work on 5 different divisions of company i.e. Highway division, Bridge division, Traffic Division, Pavement division, Pavement Material and Geotech Division

**Details of Papers/patents :** Not used

**Brief Description of working environment, expectations from the company :** Working Environment of the company was very good, the employees at the company helped us whenever we had a doubt.

**Academic courses relevant to the project :** Pavement Material Characterization, Highway Design, Highway Construction Technique

**PS-II STATION :** ICT,NEW DELHI

**FACULTY NAME:** MAHESH KUMAR HAMIRWASIA .

**STUDENT NAME:** S MADHESH (2023H1300061P)

Student Write-up

**PS-II Project Title:** Highway construction with compliance of IRC codes, highway survey, traffic survey and pavement design.

**Short Summary of work done during PS-II :** This report provides a detailed analysis of highway design, traffic studies, pavement management, and geotechnical considerations, based on an internship at Intercontinental Consultants and Technocrats Ltd., New Delhi. It covers geometric design principles, technical reports, feasibility assessments, environmental impacts, hydrological evaluations, bridge engineering, traffic forecasting, and pavement construction methodologies. The report uses Autodesk Civil 3D software for highway design, adhering to Indian Roads Congress standards for safety and efficiency. Traffic studies include dynamic traffic analysis, axle load surveys, and forecasting techniques. The report also discusses pavement management strategies, cost estimation principles, rate analysis methodologies, and construction economics. The insights gained from the internship emphasize the importance of data-driven decision-making in creating efficient and sustainable road infrastructure.

**Tool used (Development tools - H/w, S/w) :** Civil 3D, IIT PAVE, Google earth pro, Excel, QGIS



**Objectives of the project :** To design various components of Highway alignment which includes computation of Traffic and Pavement design by considering IRC codes and its design criteria.

**Major Learning Outcomes :** Highway alignment design, traffic data analysis, pavement design, quantity survey and cost estimation.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** People are so friendly and helpful. They thought us every concept in detailed way. It is very good for freshers to learn things in a practical way. They involved us in the Live projects so that we have understood how design and traffic are computed with the data available.

**Academic courses relevant to the project :** Traffic system analysis, Highway design, Pavement design and Analysis.

**PS-II STATION : ICT,NEW DELHI**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA .**

**STUDENT NAME: KANDUKURI SIVA BHAGAVAN REDDY (2023H1300062P)**

Student Write-up

**PS-II Project Title:** Learning out come for Different Technical Division at ICT

**Short Summary of work done during PS-II :** During my internship with Intercontinental Consultants and Technocrats Ltd., New Delhi, I gained hands-on experience and deep insights into various aspects of highway design, traffic studies, pavement management, and geotechnical investigations. I had the opportunity to explore the practical application of geometric design principles, interpret technical reports, and contribute to feasibility studies that considered environmental and hydrological impacts, as well as bridge engineering components. One of the key tools I learned to use was Autodesk Civil 3D, which played a crucial role in highway design. I became familiar with creating alignments, modeling terrain, and designing corridors in line with Indian Roads Congress (IRC) standards—ensuring both safety and efficiency in road projects. In traffic engineering, I was involved in analyzing dynamic traffic flow, conducting axle load and origin-destination surveys, and applying traffic forecasting techniques. These experiences helped me understand how data is used to inform better planning of road networks. I also learned about pavement management strategies, including both empirical and mechanistic-empirical design methods. I used IITPAVE software to analyze pavement layers and assess distress, gaining insights into the structural performance of pavement systems. Additionally, I developed a solid understanding of cost estimation, rate analysis, and construction economics, all of which are critical for effective financial planning in transportation projects. Overall, this internship taught me the importance of data-driven decision-making and how engineering principles are applied in real-world scenarios to develop sustainable and efficient road infrastructure. It was an enriching experience that significantly enhanced my practical understanding of transportation engineering.

**Tool used (Development tools - H/w, S/w) :** CIVIL-3D, QGIS, Google Earth Pro, IIT Pave, KGP Back for FWD Analysis, Auto CAD, Excel

**Objectives of the project :** Applying concepts of highway geometric design, traffic analysis, pavement evaluation, and cost estimation using tools like Civil 3D and IITPAVE for practical understanding of road infrastructure development.

**Major Learning Outcomes :** During the project, I learned highway alignment and geometric design using Civil 3D, along with traffic data collection and forecasting techniques. I gained insights into pavement design and distress analysis using IITPAVE, and developed basic skills.

**Details of Papers/patents : NO**

**Brief Description of working environment, expectations from the company :** Working Environment of the company was very good, the employees at the company helped us whenever we had a doubt.

**Academic courses relevant to the project :** Highway Geometric Design Using Civil-3D, Highway Design, Traffic System Analysis, Pavement Design.

**PS-II STATION : ICT, NEW DELHI**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA .**

**STUDENT NAME: SRIPALI BISWAS (2023H1440027P)**

Student Write-up

**PS-II Project Title: INFLUENCE ZONE PLAN DWARKA SECTOR 21 & MAJLIS PARK**

**Short Summary of work done during PS-II :** During PS-II, I worked on the Influence Zone Plan for Dwarka Sector 21 and Majlis Park metro nodes under Delhi's TOD policy. The work involved site assessments, mapping existing land use and infrastructure, analyzing connectivity gaps, and proposing integrated land use and mobility solutions. I contributed to developing design concepts for high-density, mixed-use development, improving last-mile connectivity, and enhancing urban livability through sustainable planning strategies.

**Tool used (Development tools - H/w, S/w) :** ArcGIS / QGIS – for spatial analysis and mapping MS Excel – for data analysis and tabulation Google Earth Pro – for site verification and geo-referencing

**Objectives of the project :** To develop a sustainable, transit-oriented Influence Zone Plan for Dwarka Sector 21 and Majlis Park that enhances connectivity, promotes mixed-use development, and optimizes urban infrastructure within the metro catchment area.

**Major Learning Outcomes :** 1. Understanding TOD Principles: Gained in-depth knowledge of Transit-Oriented Development and its application in urban planning around metro nodes.  
2. Integrated Land Use and Transport Planning: Learned to align infrastructure, land use, and mobility s

**Details of Papers/patents :** Topic :- Micro-macro-scale flood modeling in ungauged channels: Rainon-grid approach for improving prediction accuracy with varied resolution datasets Publication: Journal of Hydrology

Published: February 2, 2025

Description :- Developed micro- and mac

**Brief Description of working environment, expectations from the company :** The working environment during PS-II was collaborative, dynamic, and learning-oriented. I was part of a multidisciplinary team focusing on urban planning and infrastructure development, where I received consistent guidance from experienced mentors and senior planners. The culture encouraged independent thinking, proactive learning, and practical application of academic knowledge to real-world scenarios. Regular reviews, feedback sessions, and interactions with urban planners and engineers helped sharpen my analytical and design skills.

The office maintained a balance between professionalism and approachability, allowing for open communication and idea exchange. I was given the opportunity to work on actual project components such as mapping, land use analysis, infrastructure gap assessment, and TOD-based design solutions. This helped me gain exposure to planning regulations, development norms, and urban transport integration techniques.

From the company, I expected hands-on experience in urban planning processes, mentorship from industry experts, and opportunities to work on live projects. These expectations were largely met, as I was involved in technical analysis and strategic planning tasks that contributed meaningfully to the larger Influence Zone Plan. Additionally, access to essential tools like AutoCAD, GIS software, and planning documents supported my learning and productivity.

Overall, the experience provided a strong foundation in urban infrastructure planning and offered valuable insights into practical implementation challenges and solutions in the context of sustainable city development.

**Academic courses relevant to the project :** 1. Urban Planning and Development

2. Transportation Planning and Traffic Engineering

3. Infrastructure Planning and Management

4. GIS and Remote Sensing Applications

5. Environmental Impact Assessment

6. Sustainable Urban Development

7. Project Planning a

**PS-II STATION : IFB INDUSTRIES,GOA**

**FACULTY NAME: PAVAN KUMAR POTDAR .**

**STUDENT NAME: VIVEK PRAKASH KAUSHIK (2023H1410084G)**

Student Write-up

**PS-II Project Title: IMPROVING THE EFFICIENCY OF AC USING SUBCOOLING OF CONDENSER**

**Short Summary of work done during PS-II :** The project aimed to improve the energy efficiency of a split air conditioner by utilizing innovative heat transfer techniques and water-based cooling enhancements. The focus was on increasing the Coefficient of Performance (COP) through condensate recirculation, subcooling of the condenser, and the integration of a heat exchanger between the evaporator outlet and condenser inlet. A novel prototype was developed that collects both evaporator and surface condenser condensate in a water tank placed below the Outdoor Unit (ODU) drain hole. An Arduino-controlled system regulates a pump to drip this water over the condenser fins, enhancing subcooling through evaporative cooling. Simultaneously, a brazed copper tube-in-tube heat exchanger was introduced between the hot gas line and cold suction line to recover waste heat and optimize refrigerant thermodynamic states before compression. Multiple iterations were tested under varying humidity and ambient conditions. One of the best-performing concepts resulted in a 3.25% improvement in COP. The Arduino code was optimized for effective pump control, ensuring efficient water usage and consistent cooling. Compliance with Design for Manufacturing (DFM), Assembly (DFA), and Environment (DFE) was ensured to make the prototype scalable for industrial application. This hands-on project provided a deep understanding of refrigerant thermodynamics, system integration, sensor-based automation, and sustainability-driven design. It demonstrates a low-cost, eco-friendly solution to enhance HVAC system performance and is aligned with current industry trends toward energy conservation and green technologies.

**Tool used (Development tools - H/w, S/w) :** Arduino Uno Relay Module (5V/12V) Temperature Sensors Water Level Sensors DC Submersible Pump Copper Tubing & Brazing Kit Multimeter / Clamp Meter Manifold Gauge Set Thermocouple Reader Prototype Breadboard / PCB Arduino IDE Embedded C / Arduin

**Objectives of the project :** IMPROVING THE EFFICIENCY OF AC USING SUBCOOLING OF CONDENSER

**Major Learning Outcomes :** 1. Thermodynamic Insight

Gained deep understanding of subcooling, superheating, and their effect on COP (Coefficient of Performance).

Analyzed refrigerant behavior (R32) under different thermal conditions.

2. Heat Transfer & Energy Recovery

## **Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** As an intern in a reputed R&D Air Conditioning department, the working environment is typically dynamic, collaborative, and innovation-driven. The intern is exposed to a blend of theoretical learning and practical application, working closely with experienced engineers and designers on real-time product development and testing. The workspace often includes access to a well-equipped lab with HVAC testing rigs, tools for performance analysis, instrumentation, and prototype development facilities.

Interns are expected to actively participate in opportunity-solving, data collection, and performance evaluation of AC components such as compressors, condensers, evaporators, and control systems. Tasks may include design support, thermal simulations, refrigerant cycle analysis, assisting in testing procedures (full load, half load), and documentation. A strong emphasis is placed on safety, precision, and quality standards as per industry protocols.

From the company, interns expect a structured mentorship, technical guidance, and opportunities to contribute meaningfully to live projects. Exposure to tools like CAD software, instrumentation systems, and coding platforms (like Arduino or MATLAB) is often provided. Interns also look for constructive feedback, learning sessions, and a platform to showcase innovative ideas.

Ultimately, the goal is mutual growth—where the intern gains hands-on industry experience and the company benefits from fresh perspectives and dedicated support in product improvement and development.

## **Academic courses relevant to the project : REFRIGERATION AND AIR-CONDITIONING**

### **PS-II STATION : IFB INDUSTRIES,GOA**

**FACULTY NAME: PAVAN KUMAR POTDAR .**

**STUDENT NAME: BELANI YASH RAJ (2023H1410090G)**

Student Write-up

### **PS-II Project Title: EXPERIMENTAL STUDY ON IMPROVING COP OF THE SYSTEM BY USING VAPOUR-SEPARATOR DEVICE**

**Short Summary of work done during PS-II :** This study involved two independent yet complementary experimental projects aimed at enhancing the energy efficiency of residential air-conditioning systems: (1) Flash Gas Bypass (FGB) Tank design and (2) Waste Heat Recovery using Thermoelectric Generators (TEGs). The FGB Tank project focused on minimizing flash gas formation—a common inefficiency caused by subcooled refrigerant undergoing partial vaporization post-capillary. Two design iterations were fabricated and tested. Concept-1 suffered from poor phase separation due to undersized internal geometry. Concept-2 incorporated a

larger tank with tangential inlet to enable centrifugal vapor-liquid separation. Despite conceptual improvement, both versions failed in performance testing due to direct compressor suction drawing liquid refrigerant away from the evaporator, resulting in no cooling effect. The TEG- based energy harvester aimed to convert waste heat from compressor and PCB components into usable electrical power. Three design concepts were evaluated. Initial tests on the compressor shell showed poor thermal contact and low voltage output ( $\sim 0.4V$ ). Relocating TEGs to a flat heatsink improved contact and open-circuit voltage but still failed to power cooling fans due to current limitations. A third TEG in series increased voltage to 5V but did not sustain fan load. The system demonstrated the potential for energy harvesting but highlighted the need for storage (battery integration) and controller upgrades for practical use. Both projects offer key insights into system-level enhancements and pave the way for future refinements.

**Tool used (Development tools - H/w, S/w) : NA**

**Objectives of the project :** The Flash Gas Bypass (FGB) system is designed to mitigate the negative effects of flash gas formation in capillary tube-based expansion systems. In conventional direct expansion (DX) systems, inadequate subcooling can cause partial vaporization of the refrigerant before it reaches the evaporator, leading to reduced cooling efficiency and increased compressor workload. The FGB system addresses this aspect by separating the vaporized refrigerant from the liquid before entering the evaporator, ensuring only liquid refrigerant reaches the evaporator for effective heat absorption.

**Major Learning Outcomes :** 1)As the liquid refrigerant bypassed the evaporator, there was no significant evaporation occurring inside it, resulting in no observable cooling effect. Consequently, both designs failed to improve the system's thermal performance.

2)Although the FGB con

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The research and development (R&D) environment in the air-conditioning (AC) industry is both practical and innovation-driven. Engineers and researchers work together to improve the performance, efficiency, and reliability of AC systems through design, testing, and analysis. The atmosphere is collaborative and encourages experimentation, learning, and continuous improvement.

Most R&D teams focus on solving real-world opportunities such as reducing power consumption, improving cooling performance, and adopting eco-friendly refrigerants. Work typically involves using tools like CAD software, thermal simulation, and lab-based experimental setups. Engineers are regularly involved in designing and testing components like compressors, condensers, capillary tubes, and control systems.

The working culture supports open discussion, team brainstorming, and structured reviews to improve ideas and address technical challenges. There is a strong focus on documentation, data collection, and analysis to support experimental results and design changes.

Team members often get the chance to work on prototypes, run performance tests, and explore energy-efficient technologies like inverter control, TEG-based power generation, and improved

refrigerant flow systems. Safety and precision are key, especially while working with high- pressure refrigerants and electrical components.

Overall, the R&D environment in the AC industry is stimulating and teamwork-oriented. It offers engineers a chance to work on meaningful innovations while developing hands-on skills and technical depth in a supportive and learning-focused setting.

**Academic courses relevant to the project :** Smart Materials

**PS-II STATION :** IMMENSITAS PVT. LTD. (LEMNISK) ,BENGALURU

**FACULTY NAME:** RAJA VADHANA PRABHAKAR .

**STUDENT NAME:** JAHNAVI RISHIKESH (2021A7PS1474G)

Student Write-up

**PS-II Project Title:** Development and Migration of Frontend Modules in a Production-Grade Marketing Automation Platform

**Short Summary of work done during PS-II :** I contributed to multiple core engineering tasks involving frontend development, system modernization, and feature implementation within a production-grade environment. I began by debugging and resolving aspects across live modules, which familiarized me with the company's codebase, tooling, and development workflows. My primary project was the end-to-end development of the Predictive Lead Scoring feature—a data- driven module designed to help marketing teams prioritize leads based on conversion likelihood. I built responsive user interfaces using React.js and Material UI, integrated backend APIs, implemented routing and navigation, and enforced role-based access control. This experience deepened my understanding of full-stack workflows and user-centric design. In parallel, I worked on the migration of legacy modules, specifically the Google Export and Facebook Export pages, from an older Dash iframe architecture to a modern React-based framework. This involved translating legacy logic into modular components, improving code maintainability, performance, and scalability.

**Tool used (Development tools - H/w, S/w) :** Software tools used: Frontend - React.js, TypeScript, Material UI Backend Integration: RESTful APIs using Axios Development Environment: Visual Studio Code Version Control & Collaboration: GitHub Design & Prototyping: Figma Testing & Debugging: Chrome Dev

**Objectives of the project :** Develop a new Predictive Lead Scoring feature with complete frontend integration and role-based access control. Migrate legacy modules to a modern, modular React- based architecture. Debug and enhance existing components to improve stability and user experience.

**Major Learning Outcomes :** Improved proficiency in React.js, TypeScript, Material UI, API integration, component-based design, routing, and UI testing, gained hands-on experience building dynamic, responsive interfaces from Figma designs through to production-ready pages, gained ex

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The internship was conducted in a fast-paced and dynamic work environment at Immensitas (Lemnisk), a growing company with a compact and focused team of around 100 employees. The engineering team operated under tight timelines, which gave me a close-up view of how real-world product development is executed under pressure. While the workload was intense and engineers were often occupied, I was able to find guidance from some approachable mentors who supported me when I faced blockers.

My tasks were aligned with ongoing production goals, which meant my contributions were integrated into live systems. The company maintained high expectations in terms of deliverables, code quality, and timely execution, which pushed me to work independently and take ownership of my projects early on. Regular check-ins, stand-ups, and sprint reviews kept the development process structured and outcome-driven. Overall, it was a valuable learning experience that offered hands-on exposure to software engineering in a product-driven environment. It helped me grow both technically and professionally, while giving me a clearer understanding of industry expectations and team dynamics.

**Academic courses relevant to the project :** Computer Programming, Data Structures and Algorithms, Database Management Systems, Object Oriented Programming, Software Development for Portable Development

**PS-II STATION : IMMENSITAS PVT. LTD. (LEMNISK) ,BENGALURU**

**FACULTY NAME: RAJA VADHANA PRABHAKAR .**

**STUDENT NAME: SAKSHAM AUDICHYA (2023H1030070G)**

Student Write-up

**PS-II Project Title:** Full Stack Development for Customer Data Platform (CDP)

**Short Summary of work done during PS-II :** During my PS-II at Lemnisk, I worked on Full Stack Development for the company's Customer Data Platform (CDP). My contributions involved enhancing the file ingestion pipeline, implementing Entity-Based Segmentation (EBS), and developing scalable backend services using Koa.js. I managed both structured and unstructured data using MySQL and MongoDB, and contributed to building secure and efficient REST APIs. On



the frontend, I worked with React.js and Next.js to develop interactive dashboards and customer journey modules. My focus was on improving responsiveness, usability, and seamless integration with backend APIs. In addition to development, I conducted manual web application pentesting to identify common security aspects like authentication bypass, input validation flaws, and insecure API endpoints. Valid bugs were reported and addressed by the engineering team. I regularly used tools such as Postman (API testing), Git (version control), JIRA (task management), VS Code (IDE), Slack (team communication), and Burp Suite (for pentesting). This internship gave me hands-on experience across the full software development lifecycle, enhanced my understanding of production-grade architectures, and taught me the importance of secure coding, agile practices, and cross-functional collaboration in a fast-paced startup environment.

**Tool used (Development tools - H/w, S/w) :** React.js, Next.js, Node.js, Koa.js, MySQL, MongoDB, Git, GitHub, Postman, Visual Studio Code, Windsurf, Ubuntu, Docker (basic), AWS, Jira, Devtron.

**Objectives of the project :** To enhance the ingestion pipeline and ensure smooth entity-based segmentation (EBS). To contribute to the development and optimization of CDP services and UI dashboards. To build scalable backend systems and APIs, and improve user journey integration.

**Major Learning Outcomes :** 1. Gained hands-on experience in developing and enhancing Entity- Based Segmentation (EBS) and file ingestion pipelines, key components of Lemnisk's Customer Data Platform. 2. Built production-level features using Next.js, React.js, Koa.js, and MySQL, and

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Lemnisk offered a dynamic and fast-paced working environment that closely resembled real-world startup culture. The engineering team followed agile methodologies, with a strong focus on iterative development, continuous feedback, and collaborative opportunity-solving. Interns were treated as full-time contributors, entrusted with ownership of critical modules and involved in end-to- end development workflows.

The working environment was technically enriching, with regular code reviews, design discussions, and cross-team syncs. Team members were approachable, and help was readily available whenever needed. There was a healthy balance between autonomy and mentorship, which helped me develop both confidence and technical depth.

The company expected interns to be proactive, disciplined, and accountable for their deliverables. Emphasis was placed on writing clean, secure, and maintainable code, along with timely progress updates. A strong understanding of the existing codebase, quick adaptability to the tech stack, and effective communication were considered essential.

The work culture encouraged a mindset of continuous learning. Apart from core development, I had the opportunity to explore related areas such as security testing and deployment practices, which added to the depth of my experience.

Overall, Lemnisk provided a supportive and challenging environment that helped me grow as a full stack developer while exposing me to real-world product development, team coordination, and production-level engineering expectations.

**Academic courses relevant to the project :** Web Technology, Cyber Security, Cloud Computing, Data Structures & Algorithms

**PS-II STATION : IMMENSITAS PVT. LTD. (LEMNISK) ,BENGALURU**

**FACULTY NAME:** RAJA VADHANA PRABHAKAR .

**STUDENT NAME:** SHUBHAM KUMAR (2023H1120191P)

Student Write-up

**PS-II Project Title:** Full Stack Development

**Short Summary of work done during PS-II :** full stack development, data engineering

**Tool used (Development tools - H/w, S/w) :** aws, airflow, windsurf, vs code

**Objectives of the project :** Develop applications and automate flows

**Major Learning Outcomes :** Full stack development, data engineering, nodejs, react, python

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Complete task given in specified time.

**Academic courses relevant to the project : NA**

**PS-II STATION : IMPACT SURE TECHNOLOGIES PVT.LTD., - FINANCE ,MUMBAI**

**FACULTY NAME:** BANDI VENKATA PRASAD

**STUDENT NAME:** PRIYANSH JAIN . (2020B3A40877P)

Student Write-up

**PS-II Project Title:** Automation of Bank Guarantee Processing

**Short Summary of work done during PS-II :** At Impact sure, I worked with the product and operations team to support the document processing pipeline for banking files like Bank Guarantees (BGs) and CRLs. My main responsibility was to manually review OCR-extracted text, identify frequently occurring clauses, and group them into clusters to assist in building internal templates. I also helped filter and organize master data from Excel sheets, making it easier to track and analyze clause types across documents. Additionally, I assisted in identifying areas where automation could help reduce repetitive work, which involved basic validation of data formats and clause patterns.

**Tool used (Development tools - H/w, S/w) :** Excel

**Objectives of the project :** 1) Evaluate AI/ML extraction accuracy: Examine how accurately the AI-powered platform extracts 13 core parameters from Bank Guarantee documents. This includes identifying opportunity areas and proposing regex-based enhancements. 2) Improve document processing pipelines: Contribute to accuracy enhancement, API testing, and debugging activities for key features such as onerous clause identification. 3) Collaborate with clients for POCs: Engage in testing, feedback collection, and final verification for client-facing projects.

**Major Learning Outcomes :** I worked on document processing tasks related to banking products like Bank Guarantees and remittance files. A large part of my role involved organizing and categorizing extracted text data using OCR, and creating clusters of commonly used clauses.

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** Work environment is really good. The people here are really nice and helpful.

**Academic courses relevant to the project :** None

**PS-II STATION :** INDIAN INSTITUTE OF PETROLEUM ( IIP ),DEHRADUN ,DEHRADUN

**FACULTY NAME:** SANTOSH SOPANRAO KHANDGAVE

**STUDENT NAME:** ATHARVA SHRIRAM GHASIAS (2021A1PS2802G)

Student Write-up

**PS-II Project Title:** Oxidative Coupling of Methane for Ethylene Production

**Short Summary of work done during PS-II :** My focus was on optimizing on the reactor section of the OCM process which included identifying all the important process parameters, kinetic validation of catalysts and then deciding the dimensions, void age and other specifications of a given reactor according to the scale of production of ethylene. Then second focus was on

optimizing the CO<sub>2</sub> removal section or the adsorption-desorption section of the OCM process. Final step was economic assessment of by products and recycling strategies to be implemented in order to extract maximum value from those by-products.

**Tool used (Development tools - H/w, S/w) :** Aspen Plus, Aspen Energy Analyzer, Excel

**Objectives of the project :** Provide a template using ASPEN Plus for optimizing the whole process of Oxidative coupling of methane in order to maximize the economic value of all the main products and by products formed during the process.

**Major Learning Outcomes :** Got to learn Aspen Plus software in detail especially sensitivity analysis, design specs and kinetic reaction modules and Used aspen energy analyzer. Extensive use of excel skills required. Learnt skills related to process engineering specifically how to

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment at my internship was professional, collaborative, and conducive to both personal and professional growth. The workplace fostered open communication, with team members and supervisors readily approachable for guidance, feedback, and support. The organization maintained a structured workflow while allowing room for individual initiative and learning. My mentors insights and knowledge were instrumental in carrying the project.

**Academic courses relevant to the project :** Reactor Design, Separation process -1 and 2, heat transfer

**PS-II STATION : INDIAN INSTITUTE OF PETROLEUM ( IIP ), DEHRADUN**

**FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE**

**STUDENT NAME: KARTHIK KRISHNA KAKKATTEL . (2021A4PS1325P)**

Student Write-up

**PS-II Project Title:** Automation of Engine Deposit Rating through Digital Image Processing and Machine Learning Techniques

**Short Summary of work done during PS-II :** The project investigates the applications of image processing and machine learning algorithms in analyzing the health of engine parts. Specifically, for this study, the analysis focused on the piston crown and land regions. Traditionally, this is done visually by experts with the help of a color scale chart and a rough estimate of the surface area percentage for each type of deposit to attain a number called 'merit rating', which determines the condition of that part of the engine. The disadvantage of this method is in

repeating the results, as matching colors and estimating area percentages can be subjective, and different rating experts may not be able to reproduce the same merit rating. By using image analysis, the aim is to match the same trend in the results as compared to expert raters. In this project, a commercial software is used to develop the program. The initial codebase was developed for color-based segmentation and merit rating calculation using a dataset of piston images from the organization's archives. After achieving positive results in color identification with percentage area estimation and merit rating calculations, an experiment was set up where a set of pistons was taken from different used engines. The pictures of these pistons were taken using a professional-grade camera under the proper environmental conditions. It was analyzed using the developed program, as well as two individual expert raters. In conclusion, the results attained by the image analysis of the program followed the same trend as those of the expert raters for both the piston crown and land regions

**Tool used (Development tools - H/w, S/w) :** Commercial programming software, MS Excel, NX Studio,

**Objectives of the project :** The primary objective of my internship was to explore the applications of image processing and machine learning within the field of mechanical engineering. Specifically, the project focused on developing an automated system for the analysis of engine components. The system was designed with the potential to be scaled and adapted to meet industrial standards, ultimately enabling its use in analyzing fuel and lubricant performance, optimizing engine calibration, and enhancing quality control through automated visual inspection. My personal goals from this internship were to: 1. Gain hands-on experience in programming, with a focus on machine learning algorithms and image processing techniques. 2. Learn about industry standards through direct interaction with scientists and the use of professional resources such as ASTM manuals. 3. Immerse myself in a research-oriented environment, exchanging ideas with experts and learning to troubleshoot complex opportunities effectively. 4. Acquire practical experience in setting up and conducting experiments to test and validate developed programs. 5. Explore career opportunities within the R&D sector and evaluate how the experience aligns with long-term professional goals.

**Major Learning Outcomes :** Technical Skills

1. Gained hands-on experience in programming, specifically for image processing tasks such as grayscale conversion, thresholding, segmentation, filtering, and morphological operations.
2. Implemented and evaluated machine learning algorithm.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** My internship at CSIR–Indian Institute of Petroleum provided a comprehensive and immersive experience that significantly contributed to both my technical and personal growth. Working on the project not only deepened my understanding of these advanced technologies but also allowed me to apply them to a real-world mechanical engineering opportunity with measurable outcomes.

This experience has had a strong influence on my career direction. The institute offered a dynamic and intellectually stimulating environment with access to experienced mentors, state-of-the-art resources, and meaningful projects that contribute to ongoing scientific advancements. Interning here was a deeply rewarding experience.

**Academic courses relevant to the project :** Machine Learning, Artificial Intelligence, Digital Image Processing, Computer Vision, Engines, Motors and Mobility.

**PS-II STATION : INDIAN INSTITUTE OF PETROLEUM ( IIP ),DEHRADUN**

**FACULTY NAME: SANTOSH SOPANRAO KHANDGAVE**

**STUDENT NAME: M K ADITHYAKRISHNAN (2023H1010014P)**

Student Write-up

**PS-II Project Title:** Conceptual Process Design for the Sustainable Production of 3-Nitro-O-Xylene and 4-Nitro-O-Xylene

**Short Summary of work done during PS-II :** Studied aromatic nitration of o-xylene and recent advancements in that area. Used Aspen Data Regression System to accurately represent the experimental VLE data from the work of Ellis and Thwaites. Developed five process flowsheets for this process and identified the most cost-effective and efficient solution out of them.

**Tool used (Development tools - H/w, S/w) :** Aspen Plus. Aspen HYSYS. MS Word. MS Excel. MS PowerPoint.

**Objectives of the project :** Survey and select the most logical cost correlations for the estimation of capital and utility costs. Regress binary interaction parameters from experimental VLE data available in literature. Design simulation models for the reactor system and the intensified separation systems.

**Major Learning Outcomes :** Conceptual Process Design.

Cost estimation and reduction.

Process Intensification and Optimization. Report

Writing.

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** CSIR-IIP has a very pleasant and supportive working environment. The main focus for interns will be on learning new skills or improving existing ones. An affordable Guesthouse option is available for all interns who

are pursuing a degree from a recognized university. The training officer will assign roles based on the interns' skills or previous work experience, if possible. There is no scope for a PPO.

**Academic courses relevant to the project :** Process Intensification. Chemical Process Optimization. Advanced Chemical Engineering Thermodynamics.

**PS-II STATION : INDUS INSIGHTS AND ANALYTICAL SERVICES PVT LTD, GURUGRAM**

**FACULTY NAME: GAURAV NAGPAL .**

**STUDENT NAME: ARYAAN PARIDA (2020B1A40833H)**

Student Write-up

**PS-II Project Title:** Utilizing Data analytics for Line Monitoring

**Short Summary of work done during PS-II :** My Project at Indus involved developing effective line monitoring dashboards for the client organization utilizing data visualization tools like meta base , wherein views could be created using SQL queries. The results were then analyzed by our team and presented to the client organization for streamlining operations and improved decision-making. Besides that I often conducted excel analyses and aided in presenting business reviews.

**Tool used (Development tools - H/w, S/w) :** SQL , Metabase , Excel

**Objectives of the project :** To create efficient dashboards utilizing SQL Queries and reporting key findings using Excel

**Major Learning Outcomes :** 1. Got First Hand Experience of working in an analytics and consulting set-up.

2. Gained necessary skills around data visualization and data analysis , utilizing tools like Excel , SQL and Metabase.

3. Collaborated with stakeholders in a cross-functional

**Details of Papers/patents : Nil**

**Brief Description of working environment, expectations from the company :** The working environment at Indus is pretty great , though working hours differ based on the project you are staffed on. The expectations are pretty high from interns and we are expected to work on client deliverables right after a month post-training. The overall experience was great as managers were pretty supportive throughout the internship.

**Academic courses relevant to the project :** Supply Chain Management ,Principles of Management ,Engineering Optimization

**PS-II STATION : INDUS INSIGHTS AND ANALYTICAL SERVICES PVT LTD, GURUGRAM**

**FACULTY NAME:** GAURAV NAGPAL .

**STUDENT NAME:** BISHNU R (2020B4A11934H)

Student Write-up

**PS-II Project Title:** Financial Services

**Short Summary of work done during PS-II :** The work involved financial consulting services to a US based financing solutions client. The tools used were SQL, Python, Excel, Tableau, PowerPoint, VBA, SSRS. The work gave me a good background into financial stakeholder expectations, and how to operate at a high stakes, fast and business optimization driven corporate finance environment. I recommend anyone from a non-finance background looking to break into finance to go through financial services companies to get a better background and experience of the work being done in the field.

**Tool used (Development tools - H/w, S/w) :** SQL, Python, Excel, Tableau, PowerPoint, VBA, SSRS

**Objectives of the project :** Provide financial consulting to an American financing solutions client

**Major Learning Outcomes :** Stakeholder management, SQL, Python, Excel, VBA, Lending principles

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment was salubrious to my growth as a professional in a consulting / financial services environment. There were a few BITS mentors on the floor who provided useful insights into the company and the expectations moving forward as a delivery associate in a fast and analytics driven corporate environment. The days were more hectic than not, but the steep learning curve helps you get acclimatized to the demands and needs of different stakeholders, and how it can be managed efficiently.

**Academic courses relevant to the project :** Mathematical Modelling, Principles of Economics, Object Oriented Programming



**PS-II STATION: INDUS INSIGHTS AND ANALYTICAL SERVICES PVT LTD, GURUGRAM**

**FACULTY NAME: GAURAV NAGPAL .**

**STUDENT NAME: PARAM GUPTA . (2021A3PS0236P)**

Student Write-up

**PS-II Project Title: Data Analysis**

**Short Summary of work done during PS-II :** I worked on 4 main workstreams during this internship: 1. In-App Marketing Analysis - The objective was to track the performance of multiple marketing campaigns being run by the client and derive insights. 2. A/B testing (LCM Marketing Analysis) - The objective was to track the results of an A/B marketing test performed by the client, using statistical methods. 3. Standard Performance Reporting tables - The objective was to create SSOT (single sources of truth) tables, tracking key metrics across departments. 4. KPI Metrics Reporting - The objective was to track Key Performance Indicators (KPIs) to track business health. Amongst all 4 workstreams, the work started with learning the data nuances and existing data lake structure. Next, SQL code would be written to transform raw data available through multiple fragmented base tables into a format helpful for deriving the final metrics required by the project. This step requires multiple iterations to standardize SQL logic matching the metric definition, and deal with data nuances. Once the final tables to be used are created, depending on the requirement, one would additionally need to write python code to accurately aggregate the data at the desired granularity and calculate the exact metrics which will be meaningful to the stakeholders. One might also need to perform additional analyses at this step (for example, we performed p-value tests for the A/B test workstream). Finally, to display the numbers and create visualizations, one would be creating dashboards and reports. For this step, one needs to be mindful of presenting the overall story visible through the data in a clear manner to the stakeholders, and help them decide on key action items to be taken.

**Tool used (Development tools - H/w, S/w) :** Software tools - SQL, Python, Excel, Tableau

**Objectives of the project :** Providing complete analytical support for deriving actionable insights from data for the client

**Major Learning Outcomes :** Key Learnings:

1. Efficient SQL code writing for creating data tables
2. Deployment of Single-Source-of-Truth tables
3. Standardization of metric logic and data dictionary creation
4. Creation and automation of KPI dashboards

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Indus Insights has a competency matrix detailing the key requirements they have from every employee in both work and professional conduct. They provide ample opportunities to grow professionally by

gradually increasing responsibilities, while still remaining relevant to your role. However, they also emphasize on personal growth, organizing fun team outing and events regularly, ranging from sport events to cultural get togethers, as well as community service and office parties. The working environment, in part depending on the team manager and client requirements of course, gives you enough leeway overall to allow for managing your own time and responsibilities without pressure. The office overall has a younger and livelier vibe, and it will not be challenging to find ample peers and company even as a fresher.

**Academic courses relevant to the project :** Foundations of Data Science

**PS-II STATION : INFINEON - ELECTRONICS ,BENGALURU**

**FACULTY NAME:** SHREE PRASAD M

**STUDENT NAME:** SHUBHANGA GAUTAM (2021A3PS1284H)

Student Write-up

**PS-II Project Title:** Customer Applications Engineer

**Short Summary of work done during PS-II :** Trained on various modules of AURIX microcontroller and provided support to different clients for their automotive projects, involving AURIX

**Tool used (Development tools - H/w, S/w) :** AURIX, MCAL, Saleae Logic Pro

**Objectives of the project :** Provide solutions to various clients for their semiconductor automotive projects

**Major Learning Outcomes :** Embedded Systems, Embedded C, MCAL

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Friendly working environment. Expect to learn more about firmware design and eventually enter that field

**Academic courses relevant to the project :** Embedded Systems

**PS-II STATION : INFINEON- SUPPLY CHAIN ,BENGALURU**

**FACULTY NAME:** SHREE PRASAD M

**STUDENT NAME:** AMAL KRISHNA R (2023H1410086G)

## **PS-II Project Title: Supply Chain Management - Ramp up and Change Management**

**Short Summary of work done during PS-II :** Attended onboarding sessions to learn about the company, its departments, and how everything is organized. Took part in weekly meetings with my manager to get updates and discuss my progress. Joined training sessions on supply chain management, how production and inventory are handled, and how orders are tracked. Learned how to use various software tools for sample ordering, data management, forecasting, and tracking products from start to finish. Created and reviewed product and master data requests needed for production. Booked slots for manufacturing samples and worked with other teams like backend production and the master data group. Participated in webinars and knowledge- sharing sessions to understand how different teams work together. Contributed to a project where I helped with tasks like creating sample orders, releasing production orders, and updating master data.

**Tool used (Development tools - H/w, S/w) :** Excel and other proprietary tools

**Objectives of the project :** 1) Representing supply chain in new product development process from project release phase until successful ramp up completion. 2) Fulfill internal and external customer demands. 3) Enable and setup product master data. 4) Manage Business Change projects. 5) Partner with relevant experts and project teams. 6) Ensure a smooth transition from old to new variants/process and perform proper handover to Supply Chain Planner

**Major Learning Outcomes :** Organizational Insight, Technical knowledge, Tool proficiency, Project experience, Collaboration & communication, Opportunity solving, Professional etiquette

## **Details of Papers/patents : N.A**

**Brief Description of working environment, expectations from the company :** The working environment at the company was very professional, yet welcoming. From day one, I was treated as part of the team and given the chance to learn through both observation and hands-on tasks. The office atmosphere was collaborative, with a strong focus on teamwork and communication. Team members, including my functional manager, were approachable and always ready to guide me whenever I had doubts or needed help. Most of the work was structured around weekly meetings, training sessions, and scheduled tasks, which helped me stay organized. There was a good balance between learning and performing, and I never felt overwhelmed. I was also given access to several internal tools and platforms, which made it easy to follow processes and contribute effectively. The company expected me to be proactive, punctual, and responsible. They appreciated curiosity and a willingness to learn. Even as an intern, I was expected to complete assigned tasks on time, attend meetings, and communicate clearly with team members. Attention to detail and accuracy were important, especially while handling master data and production-related information.

Overall, the company created a positive learning environment where I could grow, ask questions freely, and develop skills that will help in my future career.

**Academic courses relevant to the project :** Supply Chain Management, Operational Research

**PS-II STATION :** INMOBI TECHNOLOGIES PVT LTD, GLANCE DIGITAL EXPERIENCE PVT.LTD.,  
,BENGALURU

**FACULTY NAME:** SEETHA PARAMESWARAN .

**STUDENT NAME:** DIVYAM SRIVASTAVA (2020B2A82103G)

Student Write-up

**PS-II Project Title:** Driving Content-to-Commerce: Backend Implementation of Action Widgets

**Short Summary of work done during PS-II :** Worked on the back-end implementation of the action widget architecture which enables highly configurable, pop-up elements on content screens, designed to boost user engagement and drive actions such as shopping, transactions, or deeper content exploration. The system featured a streamlined publishing workflow via an internal UI, which connects to a backend service and a PostgreSQL database for efficient widget creation and retrieval.

**Tool used (Development tools - H/w, S/w) :** Java, Springboot, IntelliJ, Maven, Git/GitHub, ArgoCD, Grafana, Postman, PostgreSQL(DBeaver), Visual Studio Code

**Objectives of the project :** To enhance the content-to-commerce experience by optimizing CTAs (Call-To-Actions) via a new content widget mechanism to drive content-to-commerce (C2C) actions by tagging commerce data to related content cards.

**Major Learning Outcomes :** Foundations of Software Development - Java SpringBoot, Database Concepts, Networking Concepts, Back-end Development, API Testing, Monitoring.

Writing clean code in Java using SOLID Principles.

Best practices for writing CRUD APIs and Database Management.

**Details of Papers/patents : N.A.**

**Brief Description of working environment, expectations from the company :** Flexible work timings, good helping seniors and conducive environment for learning.

My team in particular has longer working hours but most teams are positive and professional 9- 5/10-6.

Company does expect interns to work as demanding as the full-time employees

**Academic courses relevant to the project :** Done by me: OOPS

Others: DBMS, Networking (Core CS Courses)

**PS-II STATION: INMOBI TECHNOLOGIES PVT LTD, GLANCE DIGITAL EXPERIENCE PVT.LTD.,  
,BENGALURU**

**FACULTY NAME: SEETHA PARAMESWARAN .**

**STUDENT NAME: SOUMYA BIRLA (2020B5A82390H)**

Student Write-up

**PS-II Project Title:** Design and Deployment of a Helm-Based Content System with Backend Pipelines for Feature Personalization

**Short Summary of work done during PS-II :** During my PS-II at InMobi/Glance, I worked on the development of a content filtering and recommendation system, starting with the translation of legacy Java filtering logic to Python. I implemented a job scheduler and Microsoft Teams Webhook integration for automated task execution and alerts. I contributed significantly to infrastructure setup by onboarding services to Helm charts and integrating them into a centralized GitOps-based App-of-Apps deployment system using ArgoCD across US and IN Kubernetes clusters. Feature-wise, I developed backend orchestration for the Expressions module in the Nostra app, utilizing REST and gRPC APIs for real-time facial transformation workflows. Additionally, I created the Play Tab API—enabling dynamic listing of games, detail pages, and review systems—using Flask, MongoDB, and Redis caching. This experience provided deep exposure to scalable system design, DevOps workflows, and production-grade backend development in a collaborative, high-impact engineering environment.

**Tool used (Development tools - H/w, S/w) :** VS Code, GitLab, Flask, MongoDB, Redis, Docker, Kubernetes, Helm, ArgoCD, Postman, Figma, gRPC, GitLab CI/CD, Java (ScheduledExecutorService, HttpClient)

**Objectives of the project :** Develop a scalable content filtering and recommendation system. Onboard microservices to centralized Helm chart repositories for efficient deployment. Integrate multiple services into App-of-Apps GitOps architecture using ArgoCD. Build backend pipelines for the 'Expressions' feature in the Nostra app. Design and develop Play Tab API for dynamic game listings and reviews in the Nostra app.

**Major Learning Outcomes :** Helm-based microservice onboarding and deployment automation. End-to-end GitOps pipeline setup using ArgoCD for multi-cluster environments. Backend API development using Flask, MongoDB, and Redis.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment at InMobi/Glance was collaborative, fast-paced, and aligned with industry best practices. Interns were treated as full-time engineers and were entrusted with significant ownership of features and services. Agile methodologies were followed, with regular sprints, stand-ups, and reviews. Expectations were high in terms of code quality, accountability, and proactiveness. Continuous learning was encouraged, and mentors were approachable for discussions and support. I had the opportunity to collaborate with cross-functional teams including backend, DevOps, and product, which provided a holistic view of system development and deployment. The culture emphasized both technical excellence and effective communication, making it an ideal setting for growth.

**Academic courses relevant to the project : Computer Programming**

Data Structures and Algorithms

Database Systems

Software Engineering

Networks

Operating Systems

DevOps and Cloud Computing (AAOC) Machine

Learning

**PS-II STATION : INMOBI TECHNOLOGIES PVT LTD, GLANCE DIGITAL EXPERIENCE PVT.LTD.,  
,BENGALURU**

**FACULTY NAME: SEETHA PARAMESWARAN .**

**STUDENT NAME: SRI VISHNU PATCHAVA (2021AAPS0639H)**

Student Write-up

**PS-II Project Title: MODERN DATAOPS: AUTOMATING AND SCALING DATA WORKFLOWS**

**Short Summary of work done during PS-II :** Worked on open source tools which are widely adopted across major organizations, using tools ranging from docker, Kubernetes, spark and airflow. As part of the platform team, i work on the org CD platform as well, creating various products for internal use cases.

**Tool used (Development tools - H/w, S/w) :** Apache Spark, Apache Airflow, Docker, Harness platform, Rancher Desktop, Docker Hub, python

**Objectives of the project :** Datapost understanding and contribution to the teams effort.

**Major Learning Outcomes :** Work ethics, open source tools

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Great working environment, as an intern, the expectations are set but without time sensitive deadlines. Work assigned is on a similar scale as that of a SDE 1, and the team is ready to help when reaching out to them.

**Academic courses relevant to the project :** Played a support role, as the field and my branch were not similar. The electives were a major help.

**PS-II STATION : INTEGRATED ACTIVE MONITORING PVT. LTD.,PUNE**

**FACULTY NAME: MANOJ SUBHASH KAKADE .**

**STUDENT NAME: ISHAN AJAY GOKHALE (2021A3PS1536G)**

Student Write-up

**PS-II Project Title:** Evaluation of an OpenWrt Embedded Gateway for Use as an IoT Router

**Short Summary of work done during PS-II :** First 2 weeks training on Modbus, Networks, and Modbus TCP, next 1.5 months learning how to configure and work with AG-702, next 2 months testing and gateway service optimization and customization for the Atreyo gateway, next 1 month on making AG-702 deployment ready and working with AG-201 gateway, remaining duration finishing touches and handover of duties

**Tool used (Development tools - H/w, S/w) :** Python, Git, GitHub, OpenWrt, LuCI, Memray, Pip, AG-702, AG-201, AG\_IoT\_Configurator, ModScan32, Peewee ORM, Pymodbus, Shell Scripts

**Objectives of the project :** To make the AG-702 embedded IoT gateway ready to enter production and testing phase where it can be integrated into the existing production pipeline for the company and sent out for sale accordingly

**Major Learning Outcomes :** Coding in Python, SQL, and OpenWrt Operating System understanding, MQTT protocol, Modbus Protocol and other communication protocols used by embedded networks and IoT systems to communicate amongst themselves.

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment is pretty learning oriented, and one can get a lot to learn from working in the company. Mentors, seniors, and peers are willing to explain any concept and/or clear any misunderstanding right from the fundamental level up until we are clear about the objectives and the work that is to be done. Apart from that, it is a pretty homely environment as well, with people actively attempting to make newcomers feel comfortable with discussing and working at the company.

**Academic courses relevant to the project :** Embedded Systems Design, Operating systems, Computer Networks, Internet of Things

**PS-II STATION : INTEL, BENGALURU**

**FACULTY NAME: SWAPNA S KULKARNI**

**STUDENT NAME: S NIHARIKA (2020B1A82034G)**

Student Write-up

**PS-II Project Title:** Development of the OpenVINO Execution Provider

**Short Summary of work done during PS-II :** My work involved understanding the various operators of models and validating their support on the NPU and OpenVINO, which is an Open source AI toolkit developed by Intel to accelerate AI workflows. I was also involved in quantization and model stripping and fusion, which are used to optimize latencies. I developed GenAI pipelines for Whisper, diffusion models and LLMs to inference these models for important customers of the Microsoft Copilot PCs as well. I introduced discrete GPU support in the ONNX Runtime ecosystem to inference models with a discrete GPU device, and enabled support for Dequantize and QuantizeLinear ops, which are used in INT8 QDQ model architecture. Having worked with dynamic and static models, I enabled static conversion workflows and a reshape feature that would allow users to set bounds for their unknown parameters. My work also involved regularly upgrading validation pipelines that measure the performance and accuracy of many models on Intel demanding ware.

**Tool used (Development tools - H/w, S/w) :** C++, Python, Docker, Jenkins, Git, NPU and GPU drivers, Netron, ONNXRuntime, ORT GenAI, Hugging Face, Optimum

**Objectives of the project :** To develop AI Frameworks. Optimize model workflows on the NPU. Enable pipelines for the Windows Copilot PC

**Major Learning Outcomes :** GenAI frameworks, model validation, Graph traversal algorithms, model optimization on the NPU



### **Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Flexible work hours with lots of amenities for travel, work from home and leaves etc. Team relations are great and the management is in general understanding and open.

**Academic courses relevant to the project :** OOP, AI, OS

**PS-II STATION : INTEL,BENGALURU**

**FACULTY NAME: SWAPNA S KULKARNI**

**STUDENT NAME: DIVITH MAHAJAN (2020B3A31513G)**

Student Write-up

**PS-II Project Title:** Porting Physical Design Methodology Scripts

**Short Summary of work done during PS-II :** I was involved in the porting of two physical design scripts. The first was to port a TCL script that ran on a GTKIT environment to a CTH environment. These are two design environments in Intel with different dependencies and features. The newer script was intended to be leaner and require less time to run, as it was going to be primarily used to debug the design. Due to differences in environments, some functions from other scripts had to be rewritten into the present script (so that wholly importing that script was not required, and to tailor the script to the user's needs wrt the present project). The second script involved working on porting the Automatic Timing Classifier (on which i had worked in my previous semester) from TCL to Python. This involved getting familiarized with scripting and Synopsys suite in python. It also involved learning about multiprocessing in python, and how to debug aspects relating to this multiprocessing.

**Tool used (Development tools - H/w, S/w) :** Fusion Compiler, PrimeTime, Python, TCL

**Objectives of the project :** To port existing relay opt script to CTH env, To port Timing Classifier script from TCL to Python

**Major Learning Outcomes :** Learning and using TCL to script and engage with Synopsys suite for EDA. Multiprocessing in Python. Debugging. some insights into relay optimization

### **Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Relaxed working environment, helpful mentors and managers. Although a lot of employees WFH most of the week. A lot of the things learnt during the duration of this PS were entirely new and not exactly previously encountered in syllabus. No constant monitoring of progress, but you need to remain in contact with your mentor and managers.

**Academic courses relevant to the project :** Analog Digital and VLSI Design, Microelectronic circuits, Digital Design (limited extent, although overlaps with ADVD)

**PS-II STATION : INTEL,BENGALURU**

**FACULTY NAME: SWAPNA S KULKARNI**

**STUDENT NAME: MAANYA AGARWAL . (2020B3A81427P)**

Student Write-up

**PS-II Project Title:** Celadon Android Stack Optimization for AI Workloads

**Short Summary of work done during PS-II :** - Added missing microkernels in XNNPACK, a delegator for TFLite Library. - Wrote optimized code in C, Python for 44% improvement in AI Model performance on Intel devices.

**Tool used (Development tools - H/w, S/w) :** Software - C/C++, Python, GeekBench, TFLite

**Objectives of the project :** Write code to speed up TensorFlow Lite performance on Intel architecture

**Major Learning Outcomes :** - Learned to code in C/C++ for XNNPACK, a TFLite backend

- Used Python to generate tester functions
- Understood the industry level software development cycle

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Working environment in Intel was very good, with a good work-life balance. Managers were very understanding of any leaves taken due to personal reasons and were helpful in all other ways.

**Academic courses relevant to the project :** Computer Programming

**PS-II STATION : INTEL,BENGALURU**

**FACULTY NAME: SWAPNA S KULKARNI**

**STUDENT NAME: GHAG PRANAV PRADEEP (2020B4A32060G)**

Student Write-up

**PS-II Project Title:** Tool flow and Methodology for Intel CPU cores

**Short Summary of work done during PS-II :** I was the TFM owner for a project. It entailed setting up all the different tools required appropriately as well as reviewing the violations with RTL Designers. I was also a GLS owner. This involved running simulations on the synthesized netlist to verify the reset flow and output waveforms.

**Tool used (Development tools - H/w, S/w) :** Verdi, spyglass cdc, vc lint, vclp, jasper gold

**Objectives of the project :** 1. Signing off on static checks like CDC, RDC, Lint as well as GLS.

**Major Learning Outcomes :** ASIC design flow, different RTL verification methodologies, static checks, debugging simulations

**Details of Papers/patents : Na**

**Brief Description of working environment, expectations from the company :** Excellent work culture. You are given a lot of space to work independently but help is also available if you ask for it. The company isn't strict about when you are working as long as everything is getting done. People respect your time and you aren't treated differently as an intern.

**Academic courses relevant to the project :** Digital Design, Computer Architecture, ADVD

**PS-II STATION : INTEL,BENGALURU**

**FACULTY NAME: SWAPNA S KULKARNI**

**STUDENT NAME: VOBILSETTI BHARATHA SAI GOPAL PRANAY (2020B4AA0927H)**

Student Write-up

**PS-II Project Title:** Features in igcl and driver code

**Short Summary of work done during PS-II :** Implementation of an API which calls and resets 6 features related to display to default. Worked on improving the code quality and development.

**Tool used (Development tools - H/w, S/w) :** GitHub, visual studio, windbg

**Objectives of the project :** display driver development

**Major Learning Outcomes :** Understood the deep working of displays

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Working environment of the company was good. Good communication skills are expected and is an added advantage which will make the first few months easier.

**Academic courses relevant to the project :** Operating systems,

**PS-II STATION : INTEL,BENGALURU**

**FACULTY NAME:** SWAPNA S KULKARNI

**STUDENT NAME:** SAI KARTHIK C (2020B5A70762H)

Student Write-up

**PS-II Project Title:** GPU Architectural Studies

**Short Summary of work done during PS-II :** Built some python frameworks, systolic emulator, micro benchmarking all related to the AI architecture Numeric

**Tool used (Development tools - H/w, S/w) :** Nvidia GPUs, Intel GPUs, numpy, pytorch

**Objectives of the project :** Worked on many projects. Built a systolic emulator which helps figuring out how different AI architecture might perform on different numeric

**Major Learning Outcomes :** Ability to work cross teams/countries

**Details of Papers/patents : N/a**

**Brief Description of working environment, expectations from the company :** Good wlb, good colleagues, getting a PPO depends on the team and performance

**Academic courses relevant to the project :** Computer Architecture, Deep Learning, AI, OS

**PS-II STATION : INTERNATIONAL AEROSPACE MANUFACTURING PVT. LTD, BENGALURU**

**FACULTY NAME:** SRINIVAS KOTA .

**STUDENT NAME:** VASUMAN MALVIYA . (2021A4PS1364P)

Student Write-up

**PS-II Project Title:** "AI-BASED ROBOTIC VISUAL INSPECTION SYSTEM (AIRVIS) ENHANCEMENTS AND CHECKS" And "DEVELOPMENT OF GESINS PROJECT: AUTOMATING QR CODE DETECTION

## AND INFORMATION MATCHING USING HAND GESTURES" And "SPEECH-TO-TEXT DATA ENTRY IN EXCEL"

**Short Summary of work done during PS-II :** During PS-II at International Aerospace Manufacturing Pvt. Ltd., the initial focus was on improving the AIRVIS model for industrial image analysis using advanced algorithms (CBAM, GAN, VAE, CNN). Despite improvements, accuracy constraints due to limited datasets led to a pivot toward the GESINS project, which successfully automated QR code capture and information extraction using hand gesture recognition (OpenCV, MediaPipe). This system enabled intuitive operation and reliable data extraction from batch cards. Concurrently, a speech-to-text data entry system was developed to automate administrative workflows, leveraging Python's Speech Recognition library and Google Speech-to-Text API for converting spoken language into structured Excel data. The project emphasized adaptability, robust data collection, and cross-disciplinary integration, delivering significant improvements in both industrial and administrative processes. User feedback and experimental analysis informed iterative refinements, ensuring practical, user-friendly solutions. Key challenges addressed included system accuracy, integration complexity, and environmental variability, with recommendations for future enhancements focusing on data quality and modular design.

**Tool used (Development tools - H/w, S/w) :** 1)Software: Python (OpenCV, PyTorch, TensorFlow, Keras, PaddleOCR, EasyOCR, MediaPipe, Pyzbar, Pandas) Speech Recognition library Google Speech-to-Text API 2)demanding ware: ESTUN Robot Arm Hand Borescope Camera Programmable Logic Controller (PLC) COGNEX

**Objectives of the project :** Enhance the AIRVIS model for improved industrial image analysis and anomaly detection. Develop the GESINS project for automating QR code detection and information matching using hand gestures. Implement a speech-to-text system for efficient and accurate data entry in administrative workflows. Integrate advanced machine learning and deep learning techniques for robust, adaptable automation solutions.

**Major Learning Outcomes :** Gained hands-on experience in deploying deep learning models for real-world industrial and administrative tasks. Developed skills in integrating demanding ware (robot arms, cameras, PLCs) with software solutions.

**Details of Papers/patents :** Here are some relevant papers and patents related to the project domains of AI-based robotic vision, gesture recognition, and speech-to-text systems:

Research Paper:

"Development of AI Model for Robotic Vision Inspection of Sheet Metal Components

**Brief Description of working environment, expectations from the company :** The project was conducted at International Aerospace Manufacturing Pvt. Ltd., Bengaluru, in a collaborative, research-driven industrial environment. The setting provided access to advanced robotics, manufacturing systems, and administrative workflows, with a multidisciplinary team of engineers

and managers. The workflow emphasized iterative development, regular feedback, and hands-on experimentation, focusing on practical, user-centric solutions.

My expectations from the company included exposure to cutting-edge industrial automation and AI technologies, hands-on work with robotics and PLCs, and mentorship from experienced professionals. I anticipated a collaborative environment that encouraged innovation, supported iterative experimentation, and provided access to real-world datasets. Constructive feedback and opportunities for skill development were also expected. These expectations were met, resulting in a valuable experience that bridged academic learning with industry practice and fostered both technical and soft skills

**Academic courses relevant to the project :** Machine Learning, Deep Learning, Generative AI, Computer Programming.

**PS-II STATION : INTERNATIONAL AEROSPACE MANUFACTURING PVT. LTD, BENGALURU**

**FACULTY NAME: SRINIVAS KOTA .**

**STUDENT NAME: VEDANT SALIL RANDIVE (2021A4PS2895G)**

Student Write-up

**PS-II Project Title:** AI-Driven Automation in Aero-Engine Component Inspection: Integrating Computer Vision, Robotics, Human-Machine Interaction, and Speech-to-Text Technologies

**Short Summary of work done during PS-II :** Worked on 3 projects involving the automation of the inspection processes at various stages. The first project aims to replace the final visual inspection process with the integration of an AI based robotic visual inspection system. The second project involves the design and development of a gesture enabled inspection recording system. The third project involves the development and deployment of a speech to text application for automating the documentation process during the third party inspection.

**Tool used (Development tools - H/w, S/w) :** 1. Estun Robotics : Robotic Arm 2. Boroscopes used in visual inspection 3. Estun Robotics: robot teach pendant 4. Panasonic PLC 5. Pyqt library 6. Basler Camera 7. Pypylon library 8. Pymodbus library 9. Python 10. Pytorch 11. Tensorflow 12. Opencv 13. Num

**Objectives of the project :** Working on three integrated initiatives aimed at advancing automation in the inspection processes at IAMPL. The first section details the enhancements and feasibility analysis of an existing AI-based robotic visual inspection system, focusing on improving defect detection and process reliability. The second section describes the design and development of a gesture-enabled human-machine interface (HMI) that enables hands-free image and video capture during visual inspections, thereby increasing operational efficiency and reducing manual intervention. The third section outlines the creation of a speech-to-text data

entry application, seamlessly integrated with Excel, to automate and streamline third-party inspection documentation, minimising errors and accelerating data entry. Collectively, these projects demonstrate the transformative potential of AI, robotics, HMI, and speech-to-text technologies in optimising inspection workflows at IAMPL.

**Major Learning Outcomes :** 1. Applications of AI in inspection Processes  
2. Feasibility and Enhancements for Robotic systems  
3. Gesture-enabled Human machine interaction  
4. Speech to text integration in documentation

**Details of Papers/patents : N.A.**

**Brief Description of working environment, expectations from the company :** The company fosters a professional, collaborative and innovation driven working environment.

Employees are expected to :

1. Uphold high standards of quality and safety
2. Embrace teamwork and communication
3. Demonstrate initiative and adaptability
4. Focus on continuous improvement

**Academic courses relevant to the project :** 1. Robotics  
2. AI for Robotics  
3. Quality control and assurance  
4. Machine learning  
5. Generative AI  
6. Deep learning

**PS-II STATION : INTUIT INDIA,BENGALURU ,BENGALURU**

**FACULTY NAME: FEBIN A VAHAB .**

**STUDENT NAME: PATHIK SHAH (2021A7PS2085G)**

Student Write-up

**PS-II Project Title:** Large scale data migration and validation

**Short Summary of work done during PS-II :** Did large scale data migration and validation using internal tools and also worked on backend projects like api creation and integration.

**Tool used (Development tools - H/w, S/w) :** Cursor, IntelliJ, AWS, Spark

**Objectives of the project :** To migrate large amounts of data between live distributed systems and ensure synchronicity via realtime eventing

**Major Learning Outcomes :** Kotlin, AWS, Spark, PostgreSQL

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Pretty helpful people, you get a lot of exposure. The environment is good and encouraging for new people.

**Academic courses relevant to the project :** DSA, OOPS, DBMS, CN

**PS-II STATION : ITC LIMITED, PSPD - FINANCIAL DATA ANALYSIS, HYDERABAD**

**FACULTY NAME:** PANCHAGNULA JAYAPRAKASH SHARMA .

**STUDENT NAME:** SHAURYA BANSAL (2021A1PS2957G)

Student Write-up

**PS-II Project Title:** Wood Price Prediction

**Short Summary of work done during PS-II :** The work was mainly oriented around prediction modelling. There were also some other projects one of which was working with an satellite imagery team.

**Tool used (Development tools - H/w, S/w) :** QGIS, Python

**Objectives of the project :** Create and simulate commodity prices to stabilise prices.

**Major Learning Outcomes :** Data Analytics

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Constructive and comfortable workplace. People are very understanding and they actually make sure you are enjoying your work.

**Academic courses relevant to the project :** Yes



**PS-II STATION : IUDX PROGRAM UNIT, INDIAN INSTITUTE OF SCIENCE - DATA  
KAVERI,BENGALURU ,BENGALURU**

**FACULTY NAME: A REKHA .**

**STUDENT NAME: KEEGAN LOUIS MORAES (2020B4A81830G)**

Student Write-up

**PS-II Project Title:** Developing use-cases of Confidential Containers and Carbyne Stack

**Short Summary of work done during PS-II :** I had to continue my work from the previous semester. Previously we had developed code to run the Correlated Randomness Generation (CRG) inside a Trusted Execution Environment. Once that code was deployed and tested the next step was integrating our solution with Carbyne Stack a cloud solution for Secure Multi Party Computation. For integration we made changes to the code upstream in go and yaml files. Once integrated we started running a medical use case using Secure Multi Party Computation. In this use case 3 hospitals would send their data to Carbyne Stack and we would securely perform binning of people tested positive. My other work also involved finding use cases for another technology called Confidential Containers.

**Tool used (Development tools - H/w, S/w) :** Docker, Kubernetes,MPC Programming, Azure Kubernetes Service, Intel SGX, Bash Scripting

**Objectives of the project :** Developing a use case of Carbyne Stack that uses Secure Multi Party Computation with the TEE acceleration also a finding the possible use cases for Confidential Containers

**Major Learning Outcomes :** Cloud Computing

Trusted Execution Environment

Secure Multi Party Computation Carbyne  
Stack

Azure Kubernetes Service

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment was very positive with guidance and resources being provided to learn the technologies you need to complete your task.

**Academic courses relevant to the project :** Object Oriented Programming

**PS-II STATION : JIVOX CORPORATION,BENGALURU ,**  
**FACULTY NAME: PREETHI N. G .**  
**STUDENT NAME: KRISHNA DEVARAJ (2020B2A31934G)**

Student Write-up

**PS-II Project Title:** Rate Limiter and Multi-threading in Jivox IQ

**Short Summary of work done during PS-II :** Contributed to the company's Q1 maintenance release, and did a thorough end to end test of implemented rate limiter

**Tool used (Development tools - H/w, S/w) :** Java, AWS, Git

**Objectives of the project :** To test and provide alternative implementations for a rate limiter

**Major Learning Outcomes :** Multithreading, OOPs, API development, Git, AWS, Java

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Everyone is very approachable.

**Academic courses relevant to the project :** OOPs, OS

**PS-II STATION : JODO ,BENGALURU**  
**FACULTY NAME: ARINDAM ROY .**  
**STUDENT NAME: ROHIT TULSI PADALA (2021AAPS1896H)**

Student Write-up

**PS-II Project Title:** AI-Powered Ticket Pipeline System

**Short Summary of work done during PS-II :** During my PS-II at Jodo, I contributed to developing scalable backend systems for automating customer support processes with AWS-hosted LLMs. I spearheaded the creation of an end-to-end ticket categorization pipeline from scratch that combined Freshdesk webhooks with AWS SQS, Celery Beat workers, and Bedrock models to automatically categorize and summarize support tickets. This pipeline sent insights back into Freshdesk as private notes and field updates, immensely cutting triaging time and giving clarity on the nature of the tickets received. I researched and tested several LLMs on Bedrock with thousands of actual support tickets, playing with prompt engineering, exploratory data analysis, model choice, and Bedrock's Guardrails and Knowledge Bases to produce business-safe, context-

sensitive responses. I then created a Django-based microservice to streamline ticket categorization and added utilities to the company's internal Python package to improve reusability across teams. I containerized applications using Docker and utilized asynchronous process queues and scheduled tasks through Celery and Redis. This provided a scalable, cloud-native infrastructure designed for resilience and scale. The result was a production-ready support automation system that allowed for quicker resolution of tickets, real-time escalation of high-priority aspects, and team operational efficiency. Through better categorization, the system also produced actionable business insights for business teams, allowing the team to uncover recurring customer pain points and guide proactive product decisions.

**Tool used (Development tools - H/w, S/w) :** Django, Celery, Docker, Redis, AWS SQS and Bedrock LLMs, Freshdesk, VS Code

**Objectives of the project :** To develop an intelligent, automated ticket support system that streamlines query handling by classifying, routing, and responding to customer tickets efficiently. This reduces manual effort, accelerates response times, and improves overall customer experience—critical for scaling Jodo's growing partner network.

**Major Learning Outcomes :** Technical Learnings: Used Django, Celery, Docker, Redis, AWS SQS and Bedrock LLMs to work directly with production-grade backend systems. Developed expertise in designing scalable modular services, deploying with containers, and integrating machine learni

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment was really conducive for growth. The work timings and WFH/sick leave policies were flexible, with the focus mainly being on getting the task done and getting it done well. The company and team lead expect you to take ownership of the project you're assigned to and be consistent in delivering quality code for it. The team lead, senior colleagues and peers are super helpful, approachable and passionate about the work they do. Anyone across any department is always up for a conversation, so you can learn a lot about how a FinTech startup works just by talking to your colleagues. You also get to work on a diverse range of projects. It was a great place for me to start my journey as a software developer. I got to learn a great many things both about tech as well as what's needed to navigate the corporate setting.

**Academic courses relevant to the project :** CNI Minor: AI, ML, OS, OOPs, DBMS, FDSA.  
CDC/Electives: CommNet, Cryptography (for coding in Python).  
TRW (for documentation purposes).

**PS-II STATION : JP MORGAN CHASE-QUANT ,MUMBAI**

**FACULTY NAME: UMA NAGARAJAN .**

**STUDENT NAME: SWETHA KRISHNA SRIRAM (2020B3A71252H)**

Student Write-up

**PS-II Project Title:** Quantitative Research

**Short Summary of work done during PS-II :** Worked on multiple projects under the global custody line of business - metadata extraction from contracts using LLMs, Index rebalancing related trade predictions, and financial reporting

**Tool used (Development tools - H/w, S/w) :** Python, LLMs, Jupyter, AWS

**Objectives of the project :** Work on projects under the Global Custody team, using mathematics, classical machine learning, and modern AI techniques to solve opportunities in custody-related trading, settlements, reporting, etc.

**Major Learning Outcomes :** Learned how large banks operate and the important role technology place in everyday functions.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Dynamic and dynamic and growth-oriented working environment with a strong focus on knowledge sharing, expect to be a part of a global team.

**Academic courses relevant to the project :** Generative AI, Natural Language Processing, Machine Learning, Probability and Statistics, DSA, OOP

**PS-II STATION : JPMC - G&C - CIO, TREASURY & CORPORATE (CTC) RISK TEAM - CREDIT RISK/ LIQUIDITY RISK ,MUMBAI**

**FACULTY NAME: BHAMIDIPATI VAISHALI .**

**STUDENT NAME: SEHAJPAL SINGH SARA O . (2021A4PS1360P)**

Student Write-up

**PS-II Project Title:** Sovereign Review Template Enhancement

**Short Summary of work done during PS-II :** The task assigned to me included using the JPMC in-house model to give credit rating to sovereign bonds. I provided credit ratings for 15+ sovereigns

across EMEA, APAC and LAM regions after extensive research from publicly available data sources such as the IMF, World Bank and external rating agency reports such as Moody's, S&P and Fitch. Towards the later part of my internship, I was tasked with improving our sovereign review template. The earlier template involved a few shortcomings: 1. The reviews comprised of a commentary analysis which was quite verbose with no graphs. 2. The sovereign peer comparison was static wrt time and did not offer the flexibility to compare with custom groups such as the EU, emerging economies, etc. 3. The base and stress debt/GDP projections did not account for the past sovereign performance such as average GDP Growth and standard deviation. Therefore, in the revised template I worked on these challenges by standardizing the review process. The sovereigns are reviewed across 5 parameters: economic, fiscal, external, monetary and banking, while providing an outlook for each. There are a total of 41 macroeconomic variables, taken after a thorough review of external rating agencies, leveraging their best practices. The template has also been automated, and the graphs and data get updated by selecting the sovereign from a drop-down menu. The peer comparison has also been customized and involves a time series analysis to assess whether a metric deterioration was an isolated incident or a broader global trend. The best and stress debt case have also been updated and now account for historical performance of the sovereign. The stresses MeVs are calculated using historic average and standard deviation based on a user defined tail risk. These enhancements marked the culmination of my internship project, and the template has been approved for use by the senior members of the team.

**Tool used (Development tools - H/w, S/w) : Excel**

**Objectives of the project :** 1. To enhance the sovereign review template by making it more objective and data-driven. 2. More comprehensive peer comparison 3. Improve stress testing methodology.

**Major Learning Outcomes :** 1. Honed analytical skills. 2. Improved general knowledge 3. Learnt excel modelling

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The workspace was very professional, with the company expecting you to adhere to strict timelines.

**Academic courses relevant to the project :** International economics, Principles of Economics

**PS-II STATION : JPMC - GR&C WCR PORTFOLIO ANALYTICS- ANALYTICS STRATEGY ,MUMBAI**  
**FACULTY NAME: BHAMIDIPATI VAISHALI .**  
**STUDENT NAME: NANDAN GOUD B . (2020B1A11898P)**

Student Write-up

**PS-II Project Title:** Using LLM technologies for improving operational efficiencies.

**Short Summary of work done during PS-II :** The role involves developing data-driven solutions using deep learning, machine learning, and natural language processing (NLP) to enhance risk monitoring capabilities. Key responsibilities include implementing advanced methodologies, analyzing structured and unstructured data.

**Tool used (Development tools - H/w, S/w) :** Large Language Models (LLMs), Python, PyTorch, NumPy, Pandas, Excel, SQL

**Objectives of the project :** To create and enhance functionalities of an internal tool that would be used across the firm

**Major Learning Outcomes :** Deep Learning, LLM, Python, Gen AI

**Details of Papers/patents :** Not applicable

**Brief Description of working environment, expectations from the company :** Good working environment. Expected coding knowledge

**Academic courses relevant to the project :** Machine Learning, Deep Learning

**PS-II STATION :** JPMC - GR&C WHOLESALE CREDIT RISK - PRODUCT OWNER TEAM ,MUMBAI

**FACULTY NAME:** BHAMIDIPATI VAISHALI .

**STUDENT NAME:** S ANANTHA NARAYANAN (2020B5A40985H)

Student Write-up

**PS-II Project Title:** Credit risk Product development

**Short Summary of work done during PS-II :** My internship at JPMorgan Chase & Co. provided a well-rounded experience in product ownership, risk management, and integrating technology solutions into financial operations. Working within the Limits Management team, I played a crucial role in bridging business requirements with technical execution, ensuring that the organization maintained operational efficiency and compliance with risk management policies. My contributions spanned key initiatives such as designing workflows, streamlining approval processes, and managing release cycles, all of which were essential in strengthening JPMorgan Chase's financial risk infrastructure. This internship allowed me to experience the entire Agile product lifecycle within a complex risk-focused environment. From requirement scoping to release coordination, my work helped streamline dashboard enhancements, improve documentation standards, and enable accurate backend data display for decision-making.

**Tool used (Development tools - H/w, S/w) :** Jira, Confluence, Figma, SQL, MS excel

**Objectives of the project :** To develop a platform to manage the credit limits of Treasury services facilities  
Willingness to provided by JPMorgan

**Major Learning Outcomes :** Enhanced Business Communication, Stakeholder management, Agile  
Product ownership

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Very supportive  
and growth oriented learning environment. The company provides a lot of support for upskilling  
and training. The managers are very approachable to clarify questions.

Expectations from Company side:

- 1) Willingness to learn and take extra effort to ensure quality deliverables
- 2) Prompt communication
- 3) Results delivery
- 4) Curiosity to get clarification for long term vision of the project
- 5) Taking end to end ownership and proactive opportunity solving

**Academic courses relevant to the project :** Finance and Management Minor courses

**PS-II STATION : JPMC CIB R&A – BANKING ,MUMBAI**

**FACULTY NAME:** UMA NAGARAJAN .

**STUDENT NAME:** VINEET GHOSH (2021A7PS2644G)

Student Write-up

**PS-II Project Title:** Sell side Pitch for an F&B company

**Short Summary of work done during PS-II :** Helped front end Investment Bankers in New York office with  
their M&A / Capital raise projects for client companies. Worked on valuation models, Industry research,  
Company specific research etc. to deliver final products that will be presented to sponsor or strategic buyer  
companies.

**Tool used (Development tools - H/w, S/w) :** Excel, PowerPoint, Bloomberg Terminal, Factset,  
JPM proprietary softwares

**Objectives of the project :** Create a sell side pitch for a company and present it to management  
at JP Morgan

**Major Learning Outcomes** : Valuations, Company Profiling, Industry research, Modelling

**Details of Papers/patents** : None

**Brief Description of working environment, expectations from the company** : Collaborative work environment with very helpful seniors. 2021

**Academic courses relevant to the project** : BaaV, FuFA, Financial Management

**PS-II STATION** : JPMC CIB R&A – BANKING ,MUMBAI

**FACULTY NAME**: UMA NAGARAJAN .

**STUDENT NAME**: UJJWAL KHARANGAR (2021AAPS2125H)

Student Write-up

**PS-II Project Title**: CIB Research & Analytics, Banking

**Short Summary of work done during PS-II** : I worked with the Leveraged Finance team under the Debt Capital Markets umbrella, which supports the front office with the research and preparation of materials to be used for marketing and executing deals.

**Tool used (Development tools - H/w, S/w)** : Excel, Powerpoint, Bloomberg, JPMC internal tools

**Objectives of the project** : • Developing deep market, company and product knowledge across industries  
• Innovating new processes, approaches, models and products • Collaborating in a team environment, contributing to the overall goals of the firm • Fostering good relationships with colleagues globally • Clearly communicating in written and oral forms including presentations and models • Building your network across the firm including peers, mentors and senior executives

**Major Learning Outcomes** : It includes deep understanding of the debt products, how deals work and are executed, technical upskill and the overall corporate experience. Understood the real- world applicants and use-cases of the content studied in class.

**Details of Papers/patents** : -

**Brief Description of working environment, expectations from the company** : The work culture is very good and the programme is designed keeping in mind the engineering background and is paced at an optimal speed, with various opportunities to connect with senior professionals of the company. The team feedback is constructive and accommodating. The team will always help you



at various points. The team expects you to take responsibility of your work and your deliverables to be of highest quality in terms of research, analysis and attention to detail.

**Academic courses relevant to the project :** FOFA, FM, DRM, BAV, FRAM, SAPM

**PS-II STATION : JPMC CIB RESEARCH & ANALYTICS MARKETS - CCAR & SALES ,MUMBAI**

**FACULTY NAME:** UMA NAGARAJAN .

**STUDENT NAME:** KAVIN AGGARWAL . (2021A4PS0814P)

Student Write-up

**PS-II Project Title:** CIB Sales and CCAR

**Short Summary of work done during PS-II :** As a Markets Intern in JPMorgan Chase's CIB FX Structuring and CCAR team, I supported FX sales in pricing and structuring of complex products such as FX Exotics, Cross Currency Swaps (CCS), and Interest Rate Swaps (IRS). I learned to use tools like Athena, Gauss, and Sapphire to generate term sheets and perform comparative pricing. I also worked closely on process automation projects, using Excel VBA to streamline manual workflows and reduce operational inefficiencies. On the CCAR front, I contributed to exposure analysis and data compilation for regulatory reporting. I participated in regular team meetings, interacted with global stakeholders, and delivered analytical insights to support decision-making. The experience not only deepened my understanding of the FX derivatives market but also significantly enhanced my opportunity-solving, communication, and time-management skills.

**Tool used (Development tools - H/w, S/w) :** Athena, Gauss, Sapphire Pricer, Sapphire Structurer, Excel, Excel VBA, PowerPoint, Bloomberg Terminal

**Objectives of the project :** Support the FX Sales & Structuring team in deal pricing and analysis Automate existing processes using Excel VBA for increased efficiency Assist CCAR reporting by analyzing exposures and stress test scenarios Generate term sheets and model FX Exotics, Cross Currency Swaps, and Interest Rate Swaps

**Major Learning Outcomes :** Gained hands-on exposure to FX Exotics, CCS, and IRS pricing Understood real-world structuring of financial products for clients Enhanced Excel VBA automation skills for financial workflows Learned to use tools like Athena, Gauss, and Sapphire Pricer/S

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment at JPMorgan Chase was highly professional and collaborative. Despite the fast-

paced setting, the team fostered an inclusive culture where questions were encouraged and learning was prioritized. I had the opportunity to work on live projects and interact with colleagues from sales, structuring, and compliance teams. The company expected interns to be proactive, detail-oriented, and dependable in delivering quality work. Regular feedback sessions, presentations, and skill-building resources helped bridge gaps in knowledge and adapt quickly. I was also given the autonomy to explore new methods for automation and analysis, making the internship intellectually stimulating and growth-focused. The experience emphasized accountability, communication, and continuous learning.

**Academic courses relevant to the project :** Fundamentals of Finance and Accounting, Derivatives and Risk Management, Portfolio Management, Valuations (Minor in Finance)

**PS-II STATION : JPMC, MODEL RISK AND GOVERNANCE REVIEW ,MUMBAI**

**FACULTY NAME: BHAMIDIPATI VAISHALI .**

**STUDENT NAME: AAYUSHI VIVEK SAH (2020B4A32238H)**

Student Write-up

**PS-II Project Title:** MRGR Data Science Team

**Short Summary of work done during PS-II :** I undertook various governance responsibilities for the MRGR Data Science Team. I also managed 5 initial model applications out of which 3 got fully approved till date. I am also working on writing 2 reviews for AI/ML data science models.

**Tool used (Development tools - H/w, S/w) :** Python, Excel, Word

**Objectives of the project :** Review of models, Governance Tasks

**Major Learning Outcomes :** Data Science Concepts, Advanced Excel, Word

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Work environment was good, mentors and managers were quite helpful. Expectations were that we finished our work carefully within the specified deadlines.

**Academic courses relevant to the project :** Yes

**PS-II STATION : KPMG- GBS ,GURGAON**

**FACULTY NAME: PARAG RASTOGI**

**STUDENT NAME: VEDANG CHOUDHARY (2020ABPS1051P)**

Student Write-up

**PS-II Project Title:** Global Business Solutions - Corporate Services

**Short Summary of work done during PS-II :** I worked on several client projects dpanning across different industries; Retail, BFSI, Pharmaceutical, Fashion. A) Research - Primary and Secondary B) Data Analysis C) Storyboarding and solution designing D) Presenting solutions based on research and insights. I primarily worked to fond solutions that increase cost arbitrage by outsourcing-offshoring business functions to locations which have suitable talent, employee cost and other factors that clients deem important.

**Tool used (Development tools - H/w, S/w) :** MS Excel, MS Powerpoint, SQL, PowerBI

**Objectives of the project :** To learn how to work on offshoring work and outsourcing solutions for global companies

**Major Learning Outcomes :** General skills:

End to end project delivery, client management, time management, solution modelling, strategic frameworks, market research, benchmarking

Industry specific skills:

1. Solutions models for shared services, outsourcing, off-shoring advisory

**Details of Papers/patents :** NA(Confidential)

**Brief Description of working environment, expectations from the company :** Good working environment, great office and generally, good people all around office to interact and network with. Team members are nice and accommodating if the trainee displays will to learn. The firm expects interns to network with team members, and offer support because most team members are really busy with work to go out of their way to meet each intern.

All team members are rather young and understanding. They help whenever and wherever they can. All in all, great work environment.

**Academic courses relevant to the project :** Operation Management, Supply Chain Management, Engineering Optimisation, business communication, Conflict management, Quality Assurance, Principles of Economics

**PS-II STATION : KPMG- GBS ,GURGAON**

**FACULTY NAME: PARAG RASTOGI**

**STUDENT NAME: MANAS MANMOHAN KALYANPAD . (2020B1A10617P)**

Student Write-up

**PS-II Project Title:** Worked on multiple projects

**Short Summary of work done during PS-II :** 1. Index Repository Project: Developed a comprehensive index of proposals submitted by the GBS team over the past decade, categorizing them by function, sector, and solution type to enhance accessibility and support internal knowledge sharing. 2. Consultant Shadowing Project: Shadowed a senior consultant to gain hands-on experience in client engagement and project delivery. Contributed to the creation of key deliverables and deepened understanding of consulting methodologies. 3. Internal AI Tool Development (Business Analyst Role): Acted as a business analyst for the development of an internal AI tool. Defined the product description and roadmap to guide the development team, and continuously reviewed iterative outputs to identify and resolve aspects, ensuring product improvement. 4. Industry Point-of-View (PoV) Decks – Consumer Markets, ENR, and BFSI Sectors: Created strategic PoV decks analyzing current trends and developments in the Global Capability Centers (GCCs) of the Consumer Markets, Energy & Natural Resources (ENR), and Banking, Financial Services & Insurance (BFSI) sectors in India.

**Tool used (Development tools - H/w, S/w) :** Copilot, Excel, Powerpoint

**Objectives of the project :** Learn more about the functioning of the GBS division in KPMG

**Major Learning Outcomes :** 1. Enhanced research methodology by developing a comprehensive Point-of-View (PoV) deck covering multiple sectors.  
2. Strengthened communication skills through regular interactions and presentations to key stakeholders.  
3. Refined Excel proficiency and

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Extremely friendly environment where you can approach any seniors if you have any doubts.

Work timings may differ as somedays you might need to work long hours to finish deliverables. Hybrid work environment- 3 days WFO/week.

Interns won't be allowed on client project so most of the work is support and research work.

Expectations from company include - skills in PowerPoint and Excel. As these are the only tools that are required in the business consulting division.

**Academic courses relevant to the project :** Yes

**PS-II STATION : KPMG- GBS ,GURGAON**

**FACULTY NAME: PARAG RASTOGI**

**STUDENT NAME: PRAKHAR CHAUDHARY (2020B3A11034G)**

Student Write-up

**PS-II Project Title:** Management Consulting for GCCs

**Short Summary of work done during PS-II :** Helped consulting team prepare and review proposals for major companies to set up GCCs in India. Carried out market research, current state analysis, and benchmarking for company function and operations.

**Tool used (Development tools - H/w, S/w) :** MS Excel, MS Powerpoint, MS Word

**Objectives of the project :** To help the consulting team on various projects throughout the internship on setting up GCCs for client companies.

**Major Learning Outcomes :** Presentation skills, Data analysis, Finance, Consulting

**Details of Papers/patents :** Confidential

**Brief Description of working environment, expectations from the company :** It's an enjoyable environment. However, discipline and partner consultation is a must for various projects.

**Academic courses relevant to the project :** Principles of Management

**PS-II STATION : KPMG- GBS ,GURGAON**

**FACULTY NAME: PARAG RASTOGI**

**STUDENT NAME: Kuhu Agrawal (2021A1PS3059G)**

Student Write-up

**PS-II Project Title:** GCC Landscape in India

**Short Summary of work done during PS-II :** I worked on a strategic project focused on the GCC landscape in India. The primary objective was to analyze the current state, growth trends, and strategic importance of GCCs across different sectors, with a specific focus on their evolving role in innovation, digital transformation, and cost optimization. I contributed to a client engagement wherein the client was looking to expand their GBS footprint by assessing various global locations, including India, to set up a new GBS hub for multiple corporate functions. My role

included conducting a detailed location assessment to evaluate the suitability of various global cities based on multiple key parameters.

**Tool used (Development tools - H/w, S/w) :** Microsoft 365

**Objectives of the project :** The objective of the project was to understand the GCC landscape in India and evaluate the future of GCCs in India, including key considerations such as talent management, concentration risks, etc.

**Major Learning Outcomes :** Research, analytical, and communication skills

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was dynamic and engaging, yet welcoming and supportive. The team was very helpful and approachable. We were treated as integral team members and were expected to contribute meaningfully to client projects. Attention to detail, accountability, and time management were important.

**Academic courses relevant to the project :** Yes

**PS-II STATION : LOKAL APP ,BENGALURU**

**FACULTY NAME: SHREYAS SURESH RAO .**

**STUDENT NAME: VEERA TEJA B (2023H1540818P)**

Student Write-up

**PS-II Project Title:** Pricing Strategy of Dostt App

**Short Summary of work done during PS-II :** The project focused on optimizing the pricing strategy for Dostt, a voice calling application, by leveraging cohort-based analysis and targeted offers. During the internship, multiple experiments were conducted to improve user monetization and retention. The project demonstrated the value of data-driven experimentation in optimizing digital pricing models for scalable business outcomes.

**Tool used (Development tools - H/w, S/w) :** Excel

**Objectives of the project :** Exploring different pricing strategies

**Major Learning Outcomes :** Different Pricing Strategies

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Good working environment

**Academic courses relevant to the project :** Advanced Excel

**PS-II STATION : MAHINDRA ACCELO LTD- MUMBAI (WORLI) ,MUMBAI**

**FACULTY NAME: PAVAN KUMAR POTDAR .**

**STUDENT NAME: SHRAWANI MILIND VAIDYA (2021A4PS2021G)**

Student Write-up

**PS-II Project Title:** Strategic Supply Chain Analysis of CRGO Steel for Transformers and Metals for Growth in Energy and Data Infrastructure

**Short Summary of work done during PS-II :** Conducted market research focusing on CRGO (Cold Rolled Grain-Oriented) electrical steel in the global transformer industry, and strategic metals used in Battery Energy Storage Systems (BESS) and transformers in data centres. Lead sourcing for transformer manufacturers for sale of CRGO steel. Conducting strategic market projections for data centre and BESS industry to aid business expansion.

**Tool used (Development tools - H/w, S/w) :** Microsoft Excel

**Objectives of the project :** 1) To conduct supply chain analysis of CRGO steel used in transformers, conduct strategic sourcing and lead generation for the global transformer industry and data centres. 2) To conduct market analysis for metals used BESS.

**Major Learning Outcomes :** 1) To understand the transformer market worldwide and work towards selling CRGO steel.

2) To analyse the company's competitors and work towards business expansion.

3) To understand the data centre market in India, its energy usage and its transformer mark

**Details of Papers/patents :** No papers/patents since its an ongoing live project

**Brief Description of working environment, expectations from the company :** Friendly corporate environment where mentors and other colleagues help in covering knowledge gaps, provide good advice and foster a productive work culture. Since the company mainly deals with supply chain and operations work, it is advised to brush up on Excel and learn other adjacent tools like PowerBI , PivotTables and AI integration for Excel.

**Academic courses relevant to the project : Manufacturing Management**

**PS-II STATION : MAHINDRA ACCELO LTD- MUMBAI (WORLI) ,MUMBAI**

**FACULTY NAME: PAVAN KUMAR POTDAR .**

**STUDENT NAME: DIWAN ADNAN ZAFAR ALAM (2023H1420145H)**

Student Write-up

**PS-II Project Title: Enhancing Sales & Operations Efficiency at CERO**

**Short Summary of work done during PS-II :** During my internship in Sales and Operations Planning, I gained hands-on experience in managing client interactions, facilitating bulk scrap sales, and ensuring operational compliance. One of my key responsibilities was to convince authorized clients to visit our existing facilities and commit to bulk purchases. I also successfully encouraged clients to show interest in our upcoming facilities scheduled to launch by year-end. This significantly improved my communication, persuasion, and client-handling skills. I encountered several challenges, such as convincing clients about pricing, location accessibility, and material suitability. To overcome these, I developed tailored communication strategies, provided logistical solutions, and ensured that offerings met client requirements. I also played a crucial role in addressing regulatory compliance, particularly for reopening our Hyderabad plant by coordinating with the Central and State Pollution Control Boards. Beyond client engagement, I was involved in data-driven projects, including a confidential study for Mahindra Accelo to analyze steel usage in their cars based on BOM data. I also worked on confidential optimization techniques to improve internal processes. Additionally, I gathered contact details for all existing and upcoming facility locations, including Jaipur and Lucknow, aiding in our expansion strategy. Throughout the internship, I enhanced my software, analytical, and opportunity-solving skills while gaining deep exposure to supply chain management and regulatory frameworks. The experience helped me grow professionally and personally, making me more confident in handling real-world business challenges and contributing effectively to organizational goals. This internship laid a solid foundation for my future career in operations and supply chain management.

**Tool used (Development tools - H/w, S/w) :** MS Office, Power BI

**Objectives of the project :** Client Acquisition, Networking, Sales Efficiency, Regulatory Compliance, Logistics Optimization, Data-Driven Decisions, Waste Management, Steel Usage Analysis, Business Expansion

**Major Learning Outcomes :** During my internship, I significantly enhanced my communication and client-handling skills by interacting with authorized buyers and convincing them to visit and procure scrap from both existing and upcoming facilities. I developed strong opportunity-solving



**Details of Papers/patents :** No patents or papers were included as it is a live and an ongoing project.

**Brief Description of working environment, expectations from the company :** The working environment during my internship was dynamic, collaborative, and growth-oriented. I was given the opportunity to work closely with cross-functional teams, including sales, operations, and compliance, which provided me with a holistic view of the scrap material management process. The team maintained a professional yet approachable culture, which encouraged open communication, continuous learning, and proactive opportunity-solving. I was trusted with key responsibilities, such as interacting with clients, managing data, and coordinating compliance activities, which gave me a sense of ownership and accountability from the very beginning. Expectations from the company were clearly communicated and centered around three key areas: performance, learning, and initiative. I was expected to contribute to ongoing sales operations, assist in optimizing existing processes, and ensure smooth client coordination and facility compliance. The organization encouraged me to take initiative, bring forward new ideas, and constantly improve my approach based on feedback. Timely delivery, maintaining accuracy in data handling, and adhering to regulatory protocols were critical expectations throughout the internship. Additionally, the company expected interns to be adaptable and willing to take on tasks beyond their core responsibilities. This flexibility helped me grow beyond a defined role and broaden my exposure to real-time business operations. Overall, the working environment was supportive and conducive to learning, with a balanced emphasis on results and professional development.

**Academic courses relevant to the project :** Manufacturing Planning & Control, Supply Chain Management

**PS-II STATION : MARVELL TECHNOLOGY ,BENGALURU**

**FACULTY NAME: MONALI TUSHAR MAVANI .**

**STUDENT NAME: PITTA VENKATESHWARA SAI KIRAN REDDY (2023H1400114H)**

Student Write-up

**PS-II Project Title:** UVM Test bench development for ABHA protocols

**Short Summary of work done during PS-II : None**

**Tool used (Development tools - H/w, S/w) :** synopsis VCS, Verdi, System Verilog, UVM, Python

**Objectives of the project :** To build a testbench for AMBHA protocol

**Major Learning Outcomes :** Got hands on experience to build a test bench for scratch , understood industry standard protocols communication protocols used in demandingware. Got hands on experience in industry tools like synopsis VCS, Verdi.

**Details of Papers/patents : NONE**

**Brief Description of working environment, expectations from the company :** Marvell has a very inclusive work culture, that support people learn new things, and grow in career. Marvell expects a good work ethic, Innovation.

**Academic courses relevant to the project :** Digital design, VLSI architecture

**PS-II STATION : MARVELL TECHNOLOGY ,BENGALURU**

**FACULTY NAME: MONALI TUSHAR MAVANI .**

**STUDENT NAME: SMRUTI BOHRA (2023H1400120P)**

Student Write-up

**PS-II Project Title:** Reset Domain Crossing [RDC]

**Short Summary of work done during PS-II :** I deepened my understanding of RTL (Register Transfer Level) design as a foundational phase in ASIC development, where digital functionality is modeled using HDLs like Verilog or VHDL. A key focus was on the importance of robust memory operations and the challenges involved in managing Reset Domain Crossings (RDC) in complex SoC architectures. I learned that, similar to Clock Domain Crossings (CDC), improper handling of RDCs can lead to serious aspects such as metastability, data corruption, and timing violations. To mitigate these risks, I explored design strategies like clock/data gating, flop qualification, reset re-sequencing, and the use of synchronizers. These techniques help ensure safe signal transitions and maintain system integrity across reset domains. Overall, I gained practical insight into how early RTL coding practices and proper verification play a vital role in ensuring the stability, correctness, and performance of modern digital systems.

**Tool used (Development tools - H/w, S/w) :** Verdi Tool : HW

**Objectives of the project :** Learn and Implement RTL design (Register-Transfer Level) on a block level of a SOC , focuses on the digital design of electronic systems, creating the fundamental building blocks using demandingware description languages (HDLs).

**Major Learning Outcomes :** a. Gained a strong understanding of RTL (Register Transfer Level) design as the foundation for translating high-level specifications into gate-level demandingware using HDLs like Verilog/VHDL.

b. Understanding of ASIC Design Flow.

c. Know-how of industrial too

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** During my internship at Marvell Semiconductors, I experienced a truly healthy and supportive work environment that fostered both personal and professional growth. The company promotes a culture of open communication, collaboration, and inclusivity, where every team member is approachable and willing to help. The workspaces are well-structured, clean, and equipped to ensure comfort and productivity. I was encouraged to ask questions, share ideas, and learn beyond my assigned tasks, which made the learning experience rich and engaging. Regular team interactions, fun outings, and a strong emphasis on work-life balance contributed to a positive and stress-free atmosphere.

**Academic courses relevant to the project :** VLSI Design

Verilog Language

VLSI Test and Testability

**PS-II STATION : MARVELL TECHNOLOGY ,BENGALURU**

**FACULTY NAME: MONALI TUSHAR MAVANI .**

**STUDENT NAME: MADHUR VARSHNEY (2023H1400130P)**

Student Write-up

**PS-II Project Title:** Full Chip Verification of Marvell's Next-Gen Chip

**Short Summary of work done during PS-II :** During my 6-month Practice School-II internship at Marvell Technology, I worked as a Design Verification Intern on Marvell's next-generation SoC. My work began with learning SystemVerilog, followed by writing and debugging testbenches for a Dual-Port Asynchronous FIFO. I developed a coverage-oriented test plan and validated it against various corner cases such as overflow, underflow, and wraparound. I subsequently explored and verified AMBA APB3 and AXI4 protocols, and studied three proprietary Marvell protocols. To improve test scalability and maintainability, I transitioned from directed testing to developing UVM-based environments for the APB and AXI interfaces. Throughout the internship, I contributed to regression testing, waveform debugging, and coverage analysis using Synopsys VCS and Cadence Xcelium. My final project involved full-chip verification of the Timer IP, where I developed C-based test suites from scratch, performed functional checks, and helped achieve

toggle coverage targets. This internship gave me end-to-end exposure to industrial verification flows and significantly enhanced my technical and professional skills.

**Tool used (Development tools - H/w, S/w) :** Synopsys VCS, Cadence Xcelium

**Objectives of the project :** 1. To gain hands-on experience in full-chip design verification within an industrial SoC development environment. 2. To understand and verify proprietary protocols used in Marvell's next-generation chips. 3. To contribute to full-chip verification of a Timer IP block, ensuring functional correctness via C-based tests. 4. To explore and implement advanced verification techniques including functional coverage, debugging, and regression testing.

**Major Learning Outcomes :** 1. Mastered SystemVerilog and UVM fundamentals, including object-oriented features, constrained-random stimulus, and coverage metrics.  
2. Developed and debugged complex testbenches for asynchronous FIFOs and AMBA protocols (APB3, AXI4).

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Marvell Technology was highly collaborative, structured, and conducive to learning. Interns were treated as integral contributors, with access to the same tools, infrastructure, and resources as full-time verification engineers. I worked under the guidance of experienced mentors and engineers who provided consistent feedback and technical direction. Weekly meetings and check-ins ensured clarity in goals and expectations. The culture encouraged independent opportunity-solving while supporting team collaboration for complex debugging tasks. I had opportunities to present progress, seek clarifications, and contribute to real project deliverables. Expectations from the company included commitment to learning, proactive communication, and ownership of assigned verification tasks. Overall, the internship environment at Marvell fostered technical growth, industry readiness, and professionalism.

**Academic courses relevant to the project :** VLSI Design, Embedded Systems Design, VLSI Architectures

**PS-II STATION : MATHWORKS INDIA PVT.LTD., , BENGALURU ,BENGALURU**

**FACULTY NAME: A MICHAEL ALPHONSE**

**STUDENT NAME: HARSHAVARDHAN GALI (2021AAPS0691H)**

Student Write-up

**PS-II Project Title: Code Difference FBT**

**Short Summary of work done during PS-II :** During my internship at MathWorks, I received basic training in MATLAB, Simulink, Simscape, and code generation. I also participated in the MATLAB Answers forum, where I answered user queries and gained some experience with common technical aspects. My main project involved working on Feature-Based Testing (FBT), specifically analyzing differences in automatically generated code when features change. I was responsible for adding a small functionality to the existing FBT infrastructure. This required understanding the current setup, planning the integration, and implementing it without disrupting the existing workflow. I also wrote a simple pre-processing script to help prepare inputs for the testing process. The work involved following standard coding practices, participating in code reviews, and ensuring the changes were well-integrated. Overall, the project gave me some hands-on experience with automated testing tools and helped me understand how code changes are managed in large systems

**Tool used (Development tools - H/w, S/w) :** MATLAB, Simulink

**Objectives of the project :** Modify the script from old infrastructure to new Infrastructure and add a new enhancement.

**Major Learning Outcomes :** Gained hands-on experience with MATLAB, Simulink, and Simscape. Learned code generation and automation workflows.

Worked on Feature-Based Testing (FBT) and code difference analysis. Applied software engineering best practices in a real-world project.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** If you're considering joining MathWorks. They offer an honest glimpse into what you can actually expect. During the internship, the first two months are for training, after which you'll be in a 4-week cycle: 3 weeks of project work followed by 1 full week of technical support. This means answering MATLAB questions on an online forum (MATLAB Answers). The cycle changes to 2 weeks of project work and 2 weeks of technical support, and you'll be on calls with customers, doing true front-line support.

**Academic courses relevant to the project :** OOPS, DSA

**PS-II STATION : MATHWORKS INDIA PVT.LTD.,, HYDERABAD**

**FACULTY NAME: A MICHAEL ALPHONSE**

**STUDENT NAME: ISHAAN KAPOOR (2021A7PS2091G)**

Student Write-up

**PS-II Project Title:** Enhance the existing MATLAB tests in compiler area

**Short Summary of work done during PS-II :** First 2 months were spent exclusively on trainings, March onwards I was alternating between my project and Technical Support via MatLab Answers.

**Tool used (Development tools - H/w, S/w) :** Gecko, Perforce, BatCave, Virtual Machines, MATLAB, Simulink, Simscape, Toolboxes, etc.

**Objectives of the project :** Enhance the existing MATLAB tests in compiler area

**Major Learning Outcomes :** Learnt unit testing principles and internal tools

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** Very learning focused and growth oriented. Very respectful and professional. Couldn't have asked for a more comfortable environment.

**Academic courses relevant to the project :** Yes

**PS-II STATION : MATHWORKS INDIA PVT.LTD., , HYDERABAD**

**FACULTY NAME: A MICHAEL ALPHONSE**

**STUDENT NAME: ABHIRAM AJITH (2021A7PS2525G)**

Student Write-up

**PS-II Project Title:** INTEGRATING QUALITY ENGINEERING AND GENERATIVE AI FOR ROBUST SOFTWARE DEVELOPMENT

**Short Summary of work done during PS-II :** The project involves an in-depth analysis of an advanced simulation toolbox, emphasizing the importance of rigorous quality engineering practices. It includes the development and implementation of unit and system tests, ensuring the toolbox's reliability and performance under various conditions. In addition, it covers an experimental Generative AI project focused on automating test-to-source file mapping using large language models. The report also highlights the integration of various training programs for MathWorks products, including MATLAB, Simulink, code generation, machine learning, deep learning, reinforcement learning, and mathematical foundations, which are essential for maximizing project capabilities. Furthermore, it discusses the role of community engagement through a dedicated MathWorks forum, where answering user queries fosters knowledge sharing and continuous improvement

**Tool used (Development tools - H/w, S/w) :** MATLAB, LLMs

**Objectives of the project :** Quality Engineering of a yet-to-be released toolbox in MATLAB

**Major Learning Outcomes :** Quality Engineering, Generative AI, Technical Support

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Working environment is good. Managers, mentors and other colleagues are very helpful. Allows flexibility in choosing projects.

**Academic courses relevant to the project :** Computer Programming, Object Oriented Programming

**PS-II STATION : MBB LABS - PRODUCT EFFICIENCY ENGINEERING ,BENGALURU**

**FACULTY NAME: PRAVIN YASHWANT PAWAR .**

**STUDENT NAME: AADITYA (2023H1540815P)**

Student Write-up

**PS-II Project Title:** 1) Automation of Data Drift and Probability Calibration 2) Backend Testing

**Short Summary of work done during PS-II :** 1) To predict Default Loans 2) Automate the Data Drift Checking Indicators 3) Automating the Probability Calibration to get accurate Accuracy Metrics 4) Backend Testing

**Tool used (Development tools - H/w, S/w) :** SQL, Python, R, Excel

**Objectives of the project :** The goal of this project is to develop a predictive model that determines whether a loan applicant is likely to default.

**Major Learning Outcomes :** Through this project, one can develop a strong understanding of end- to-end machine learning workflows applied to real-world financial data. Key learning outcomes include the ability to preprocess and engineer features from raw datasets, build and fine-tun

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at MBBLabs is dynamic, collaborative, and innovation-driven, offering a unique blend of industrial exposure and technical opportunity-solving. It fosters a culture of continuous learning, where interns are encouraged to take ownership of real-world projects that directly

contribute to business outcomes. The environment promotes teamwork, open communication, and agile development practices, allowing individuals to grow both professionally and personally. As a part of MBB Labs, I expect to gain hands-on experience with industry-standard tools and methodologies, particularly in areas such as data analytics, machine learning, business intelligence, and automation. I look forward to working alongside experienced professionals who can provide mentorship and feedback, helping me bridge the gap between academic learning and practical application.

**Academic courses relevant to the project :** 1) Machine Learning  
2) Tools - Python, R, SQL

**PS-II STATION :** MBB LABS PVT.LTD., (MAYBANK),BENGALURU ,BENGALURU  
**FACULTY NAME:** PRAVIN YASHWANT PAWAR .  
**STUDENT NAME:** MANCHALA PRASHANTH KUMAR (2020B2A32394H)

Student Write-up

**PS-II Project Title:** Balance Sheet Optimization

**Short Summary of work done during PS-II :** During my internship at MBB Labs, Bengaluru, I developed a multiprocessing-based backend system for balance sheet optimization as part of the IR1 team. The project involved designing a Flask API server integrated with a multiprocessing.Queue and Manager().dict for shared state and status tracking. The system allowed CPU-bound optimization tasks to run in parallel using separate processes, achieving true concurrency. Key components included process-safe job dispatching, modular optimization steps, per-request state management, and fault-tolerant logging. I implemented core features such as a fetch\_status endpoint, dynamic process scaling, and performance benchmarking. The system achieved a 5x speed-up compared to the previous threaded model, efficiently handling multiple concurrent requests without blocking. I faced and resolved challenges including picklability aspects, DB connection handling across processes, and safe worker shutdown. Overall, the internship provided real-world experience in backend system architecture, multiprocessing, and production-grade API design.

**Tool used (Development tools - H/w, S/w) :** Software: Python, Flask, Multiprocessing module, Oracle DB, Postman, http, psutil

**Objectives of the project :** To build a multiprocessing-based backend infrastructure to handle balance sheet optimization (BSO) tasks concurrently with high performance, minimal latency, and fault tolerance using Flask, multiprocessing, and process-safe constructs.

**Major Learning Outcomes :** Mastery in Python multiprocessing and Flask integration



Understanding of CPU-bound vs I/O-bound task execution  
Design and implementation of scalable background processing pipelines  
Deep insights into inter-process communication and shared memory safety

**Details of Papers/patents :** No new papers or patents published.

However, the work referenced:

H.J.A. Hellemons, "Bank Balance Sheet Optimization" (Master's Thesis)

**Brief Description of working environment, expectations from the company :** MBB Labs, a subsidiary of Maybank, offered a professional and innovation-focused environment for interns. The IR1 team fostered a collaborative atmosphere with open access to experienced engineers and domain experts. I was expected to deliver production-ready backend enhancements aligned with enterprise-grade standards. Daily responsibilities included working on multiprocessing frameworks, handling system benchmarking, and integrating APIs with robust error handling. The culture emphasized ownership, proactivity, and precision. Our mentors ensured that we were guided through practical implementations while exposing us to scalable design thinking. The structured feedback, peer reviews, and open discussions significantly enriched the learning experience. Expectations from interns were high, yet achievable due to the available mentorship and technical resources.

**Academic courses relevant to the project :** Object-Oriented Programming

Database Systems

Operating Systems

Software Engineering

Parallel & Concurrent Programming Computer

Architecture

Introduction to Machine Learning (for optimization principles)

**PS-II STATION : MBB LABS PVT.LTD., (MAYBANK),BENGALURU ,BENGALURU**

**FACULTY NAME: PRAVIN YASHWANT PAWAR .**

**STUDENT NAME: SUBHRANSHU SEKHAR PANDA . (2020B4A41988P)**

Student Write-up

**PS-II Project Title:** JUnit Testing and Web-Dev

**Short Summary of work done during PS-II :** During my Practice School-II at MBB Labs Pvt. Ltd., I worked as a Product Engineer focusing on both backend testing and frontend development. My primary responsibility was to improve the code quality and reliability of enterprise-level applications by increasing unit test coverage using JUnit and Mockito. I contributed significantly to raising the code coverage of core Java projects such as best-web, PestosCommonServices, and

PestosCommonUtils, achieving up to 76% coverage in some modules. Using Mockito, I created mock dependencies, implemented stubbing and verification, and wrote parameterized tests to ensure robust test scenarios. In addition to backend tasks, I also worked on enhancing the frontend using React. This involved fixing UI bugs, optimizing components, and partially migrating the codebase from an older version of React to the latest version. I utilized hooks like useState and useEffect for efficient state management and contributed to building responsive and reusable components. Throughout the internship, I actively participated in Agile Scrum processes including sprint planning, daily stand-ups, and retrospectives. Task tracking was done via JIRA, and code quality was continuously monitored using SonarQube. My work not only improved software reliability but also strengthened team performance during sprints. Overall, the internship provided me with hands-on experience in full-stack development, test-driven development, and agile methodologies, significantly enhancing my technical and professional skills.

**Tool used (Development tools - H/w, S/w) :** 1. JUnit – For writing and executing unit tests. 2. Mockito – For mocking dependencies and verifying interactions in tests. 3. Spring Boot – For backend development and building RESTful APIs. 4. React – For creating reusable and responsive frontend

**Objectives of the project :** To improve the quality and reliability of enterprise software by increasing code coverage through JUnit and Mockito-based unit testing, while also contributing to frontend development using React to enhance user interface and experience.

**Major Learning Outcomes :** During my internship, I gained practical experience in unit testing using JUnit and Mockito, which helped improve code quality and reliability. I also enhanced my frontend development skills by working with React, focusing on component-based architecture

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The working environment at MBB Labs was collaborative, agile, and growth-focused. Interns were treated as integral team members and were expected to contribute actively to real projects. The company followed Agile Scrum practices with regular stand-ups, sprint planning, and reviews, encouraging accountability and continuous improvement. Expectations included delivering high-quality code, improving test coverage, resolving bugs, and working independently with proper guidance. The team was supportive and approachable, and there was a strong emphasis on learning, innovation, and adherence to best practices. Overall, it was a professional and learning-rich environment.

**Academic courses relevant to the project :** Yes

**PS-II STATION : MCCAIN FOODS (INDIA) PVT. LTD. ,GURGAON**

**FACULTY NAME: HARISH KUMAR AGGARWAL .**

**STUDENT NAME: PRACHEE SHARMA (2021A3PS2867H)**

Student Write-up

**PS-II Project Title:** Software Development

**Short Summary of work done during PS-II :** Worked on creating internal applications for the company. Worked on contributing to more efficiency using AI

**Tool used (Development tools - H/w, S/w) :** VSCode, Visual Studio

**Objectives of the project :** Learning how to work as a team and software development

**Major Learning Outcomes :** Using AI, team collaboration, software development at industry level

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Very nice working culture, helpful and insightful people

**Academic courses relevant to the project :** All Computing & Intelligence Minor Courses

**PS-II STATION : MCCAIN FOODS (INDIA) PVT. LTD. ,GURGAON**

**FACULTY NAME: HARISH KUMAR AGGARWAL .**

**STUDENT NAME: AMEY PRASHANT PATIL (2021A7PS2740G)**

Student Write-up

**PS-II Project Title:** Software Development and AI initiatives at McCain

**Short Summary of work done during PS-II :** As part of my internship at McCain Foods, I gained hands-on experience with modern software development technologies and AI-driven innovation initiatives. My learning journey included in-depth training in C#, .NET, SQL, and Angular - technologies widely used in enterprise application development. In parallel, I conducted research on artificial intelligence, including Deepseek and low-code/no-code platforms, and explored their potential to accelerate McCain's digital initiatives. In addition to training and research, I actively contributed to a key SDLC automation project focused on converting business requirement documents into structured user stories. This work laid the foundation for integrating generative AI models into the development lifecycle, ultimately supporting the automated generation of

code and test cases. I was also involved in real-world application development through contributions to the MDIxAI system - used across McCain's manufacturing plants - and developed an independent hotel management system to reinforce full-stack development skills.

**Tool used (Development tools - H/w, S/w) :** 1. Programming Languages: C#, TypeScript & JavaScript, Python, SQL. 2. Frameworks & Libraries: .NET Core, Angular, RxJS, Pandas, openpyxl. 3. Databases: MS SQL Server. 4. Tools & IDEs: Visual Studio, VS Code, Github, Postman, Swagger UI.

**Objectives of the project :** 1. Gain Proficiency in Enterprise Technologies: To develop a strong foundation in widely adopted enterprise technologies including C#, .NET, SQL, and Angular, enabling effective contribution to large-scale software systems. 2. Understand and Apply the Software Development Life Cycle (SDLC): To understand end-to-end SDLC processes and contribute to automation initiatives that enhance productivity and reduce manual effort in software development. 3. Explore AI and Emerging Technologies: To research and evaluate the potential of AI models and low-code/no-code platforms in transforming traditional development workflows and accelerating digital transformation within McCain Foods. 4. Apply Learning through Real-World Projects: To contribute meaningfully to existing enterprise applications such as MDIxAI and develop a standalone hotel management system to consolidate full-stack development skills. 5. Prototype AI-Driven Automation in SDLC: To lay the groundwork for AI integration in SDLC, especially in converting business requirements into structured formats for automated code and test case generation.

**Major Learning Outcomes :** During the internship, I gained practical proficiency in C#, .NET, SQL, and Angular, enabling me to contribute effectively to both backend and frontend development. I developed a solid understanding of the software development life cycle (SDLC), particula

### **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at McCain was professional, healthy, and supportive. The office space was well- maintained, and the overall atmosphere encouraged learning and collaboration. My colleagues were approachable and always ready to guide me, which made adapting to new tasks and technologies smooth and enjoyable.

I expected hands-on experience with real-world projects, exposure to modern technologies, and mentorship from experienced professionals. These expectations were met. I got to work on impactful projects, received constructive feedback and participated in training sessions that enhanced my technical and research skills.

Overall, the experience was highly positive, with a work culture that promoted both personal and professional growth.

**Academic courses relevant to the project :** Object Oriented Programming, Database Management Systems, Artificial Intelligence, Natural Language Processing, Software Engineering

**PS-II STATION : MEDIATEK BANGALORE PVT LTD ,BENGALURU**

**FACULTY NAME: A REKHA .**

**STUDENT NAME: RITWIK BASAK (2023H1030079P)**

Student Write-up

**PS-II Project Title:** Study of MIPS I7200 processor and the nanoMIPS32 Instruction Set Architecture and of Functioning of NUCLEUS Real-Time Operating System

**Short Summary of work done during PS-II :** First I studied the MIPS i7200 architecture which is used in the smartphone MODEM, next about the MODEM RTOS, its memory management services, its exception handling flow, the boot-up process of the MODEM. For each module study I had to give presentations ranging from 1hr-2hrs, during which Taiwan HQ members of our team were present via video-conferencing. I was also given debugging exercises following which I was on one week of live debugging support.

**Tool used (Development tools - H/w, S/w) :** S/W development tools used - VS Code, Perforce, Linux commands

**Objectives of the project :** To learn about how the smartphone network MODEM works

**Major Learning Outcomes :** Learnt about the in-house RTOS used by MediaTek in smartphone MODEM, how the MODEM boot-up happens, how memory management happens, how exception flow is handled

**Details of Papers/patents :** No paper/patent

**Brief Description of working environment, expectations from the company :** We are expected to be present in the office for 9 hrs per day, which includes 1 hr of lunch break. Everyday I had an informal chat with my manager followed by a discussion with my mentor outlining the various tasks I had to perform in that day (most of it was related to platform study and some debugging exercises). At the end of every day I had to send an email highlighting the tasks completed during that day, the tasks which could not be completed and the plan for the next day. I had 1-on-1 meeting with my manager every 2 weeks. Also our team had sync-up meeting with Taiwan HQ members every 2 weeks, during which we had to present our work progress for the past 2 weeks.

**Academic courses relevant to the project :** Advanced Computer Architecture, Advanced Operation System, Embedded System and Design

**PS-II STATION : MEDIATEK BANGALORE PVT LTD ,BENGALURU**

**FACULTY NAME: A REKHA .**

**STUDENT NAME: MALINA SAHOO (2023H1030089H)**

Student Write-up

**PS-II Project Title:** Embedded system Design

**Short Summary of work done during PS-II :** Learn about systemd and how to work with systemd

**Tool used (Development tools - H/w, S/w) :** Internal tool VDK

**Objectives of the project :** To learn about systemd to do boot optimization

**Major Learning Outcomes :** How systemd works at boot time and handle the processes in background

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** It's good always gets support from seniors

**Academic courses relevant to the project :** Yes

**PS-II STATION : MEDIATEK BANGALORE PVT LTD ,BENGALURU**

**FACULTY NAME: A REKHA .**

**STUDENT NAME: T V ABHINAV VISWANAATH (2023H1120182P)**

Student Write-up

**PS-II Project Title:** Driver and firmware development for SoC

**Short Summary of work done during PS-II :** Got to coordinate with HQ team in Taiwan, implement missing features, resolve bugs and take care of coding standards.

**Tool used (Development tools - H/w, S/w) :** Visual studio

**Objectives of the project :** To take care of power management part of SoC.

**Major Learning Outcomes :** Got to learn how to manage time, tasks, coordinate with team members. Got to know the work culture and lifestyle of the people at HQ in Taiwan

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Bring a Team player, taking responsibility at hand, bring motivated about the work.

**Academic courses relevant to the project :** C programming

**PS-II STATION : MEDIATEK BANGALORE PVT LTD ,BENGALURU**

**FACULTY NAME: A REKHA .**

**STUDENT NAME: PRIYANSH DESHMUKH (2023H1120193P)**

Student Write-up

**PS-II Project Title:** UEFI Firmware Development using EDK-II

**Short Summary of work done during PS-II :** Key components and specifications of the EDK-II (EFI Development Kit II) framework by TianoCore, which serves as a reference implementation for UEFI firmware development. Beginning with an introduction to EDK-II and its build specifications, the report delves into the Human Interface Infrastructure (HII), a crucial system for managing user interactions within UEFI environments. It further examines the Visual Forms Representation (VFR) and Internal Forms Representation (IFR), which define how user interface elements are structured and interpreted by the firmware. Additionally, the role of UNI files in supporting localization and internationalization within HII is discussed. Together, these elements provide a comprehensive view of how modern UEFI firmware interfaces are constructed and maintained using EDK-II

**Tool used (Development tools - H/w, S/w) : C, C++**

**Objectives of the project :** To develop UEFI Firmware using EDK-II

**Major Learning Outcomes :** Firmware development, Coding practices, UEFI architecture and boot process

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Good work environment, helpful mentors and cutting edge technology development.

**Academic courses relevant to the project :** Yes

**PS-II STATION : MEESHO - APM ,BENGALURU**

**FACULTYNAME: SANDEEP KAYASTHA .**

**STUDENT NAME: SAAKSHI ADIGA S (2020B1A41930G)**

Student Write-up

**PS-II Project Title:** Voice search and experimentation

**Short Summary of work done during PS-II :** During my PS-II at Meesho, I worked as a Product Intern on the Search team, focusing on enhancing discovery through Voice Search, Autocomplete, and Experimentation. My primary responsibility was to identify user pain points— especially for Tier 3/4 users—and translate them into actionable product improvements. I led the end-to-end development of the Autocomplete Recents feature to reduce user friction, authored PRDs, coordinated with design and tech teams, and conducted QA for release. In parallel, I contributed to Kaizen metric tracking, building dashboards to monitor search health across engagement, latency, and CTR. For Voice Search, I conducted deep dives using SQL, user interviews, and journey mapping to uncover transcription and usability aspects. This work informed a redesign that improved discoverability and accessibility. I also helped run structured A/B experiments on features like Visual Recents and Voice Search using internal tools, and synthesized learnings into experiment recaps for leadership. Additionally, I worked on improving the Autocomplete ranker, testing model variants that boosted suggestion relevance and conversion. Lastly, I documented the Search Architecture, mapping Meesho’s search stack to reduce onboarding friction and cross-team ambiguity.

**Tool used (Development tools - H/w, S/w) :** spark, jira, coda, mixpanel, signal, zappier, docs

**Objectives of the project :** Learning PM basics and Voice Search Enhancement

**Major Learning Outcomes :** PM principles, Voice Search, Data analysis

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The working environment at Meesho was fast-paced, collaborative, and deeply user-centric. From day one, I was integrated into the Product and Engineering team, where I experienced a strong culture of ownership, open communication, and iterative opportunity-solving. Despite being an intern, I was treated as a core contributor—given autonomy, trusted with end-to-end projects, and encouraged to voice my ideas in team discussions. Cross-functional collaboration was a key aspect of the workflow, with frequent syncs between product managers, designers, data scientists, and engineers. Everyone was approachable and willing to mentor, which fostered a supportive learning environment. Feedback was prompt, actionable, and instrumental in accelerating my growth. Tools and documentation were robust,



and the team maintained a healthy balance between data-driven rigor and intuitive decision-making. The expectations from the company were clear and empowering. I was expected to take ownership of my projects, approach opportunities with a user-first mindset, and contribute meaningfully to product outcomes. There was a strong emphasis on understanding real user behavior—especially from Tier 2/3 regions—and translating those insights into scalable product solutions. Timely communication, self-initiative, and structured thinking were highly valued.

Overall, Meesho offered a dynamic and growth-oriented environment that combined the energy of a high-growth startup with the structure of a mature product organization. It pushed me to think critically, collaborate effectively, and build products that genuinely solve user opportunities.

**Academic courses relevant to the project : POE**

**PS-II STATION : MEESHO - APM ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: RAASHI VANWANI . (2020B2A30637P)**

Student Write-up

**PS-II Project Title: ENABLING AD FLYWHEEL OF NEW CATALOGS AND CREATING A NEW BIDDING SYSTEM**

**Short Summary of work done during PS-II :** During my PS-II at Meesho, I worked on two key projects aimed at improving the adoption and performance of advertisements for newly uploaded catalogs. To address this, we introduced slot reservation strategies and designed structured seller programs to increase adoption and early catalog testing. The second project involved designing a new bidding system called GMV Max, aimed at helping sellers maximize their GMV while staying within ROI limits. I contributed to building core modules such as PCVR calibration, catalog-level budget allocation, real-time bidding, adaptive budget pacing using PID controllers, and the Alpha system for real-time ROI safety. We also introduced mechanisms like floor CPC and bid shading to ensure sustainable auction dynamics. These systems were rigorously tested and showed significant improvements in campaign pacing and ROI protection. Together, these initiatives not only helped improve the visibility and growth of new catalogs but also laid the foundation for a scalable, performance-driven advertising engine at Meesho. The experience provided valuable exposure to applied machine learning, ad tech systems, and cross-functional product development.

**Tool used (Development tools - H/w, S/w) :** none, only used SQL for data visualisation and excel

**Objectives of the project :** The project had two core objectives. The first was to solve the discovery opportunity for new catalogs on Meesho, especially those ineligible for Explore due to

aspects like high pricing or duplication. This involved using Ads to overcome the cold start challenge by improving visibility through slot reservation and structured seller programs. The second objective was to rebuild the ad bidding system through the creation of GMV Max — a smarter, real-time campaign type that helps sellers maximize GMV while maintaining ROI safety. This entailed developing modules like PCVR calibration, catalog-level budget allocation, real-time bidding, and adaptive budget pacing, all working together to enable confident ad spending and unlock long-term growth for both sellers and the platform.

**Major Learning Outcomes :** Through this project, I gained a comprehensive understanding of how new catalogs scale on an e-commerce platform and the critical role ads play in overcoming cold start challenges. I learned how discovery mechanisms like Explore fall short for certain sel

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment at Meesho was dynamic, fast-paced, and highly collaborative. As part of the Monetisation team, I was given meaningful responsibilities from day one and encouraged to take ownership of key opportunity statements. The culture fostered open communication, with frequent brainstorming sessions and feedback loops that enabled rapid iteration and learning. I worked closely with product managers, data scientists, and engineers, which gave me a holistic understanding of how technical, business, and user perspectives come together in decision- making.

Expectations from the company were centered around opportunity-solving, structured thinking, and outcome-oriented execution. I was expected to break down complex systems, propose practical solutions, back hypotheses with data, and communicate insights clearly. The team valued clarity of thought, experimentation, and the ability to translate seller and platform needs into scalable system designs. There was also a strong emphasis on learning and mentorship — I received consistent guidance from my manager and peers, which helped me grow technically and professionally.

Overall, the environment pushed me to think critically, work independently, and collaborate effectively across disciplines, making the internship both challenging and deeply rewarding.

**Academic courses relevant to the project : Yes**

**PS-II STATION : MEESHO - APM ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: DHRUV BANSAL . (2020B2A41401P)**

Student Write-up

**PS-II Project Title:** Fod Discovery

**Short Summary of work done during PS-II :** We customised discounts using ds moel for the user

**Tool used (Development tools - H/w, S/w) :** exiboost , sql

**Objectives of the project :** To increase discounting depth of user

**Major Learning Outcomes :** SQL , RCA

**Details of Papers/patents :** none

**Brief Description of working environment, expectations from the company :** Good working environment.

**Academic courses relevant to the project :** Yes

**PS-II STATION : MEESHO - APM ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: ARYAN SINGH . (2020B5A11665P)**

Student Write-up

**PS-II Project Title:** ENHANCING USER ENGAGEMENT ON SALE USING A/B EXPERIMENTS AND DAILY DEALS DASHBOARD

**Short Summary of work done during PS-II :** During my Practice School II (PS2) at Meesho, I contributed to enhancing user engagement and sales performance during flagship sale events through data-driven experimentation and dashboard development. The project involved designing and implementing A/B experiments targeting key user touchpoints: changing the app icon during sales, scaling up the recently viewed widget with visible discount tags, and introducing real-time price drop animations on the catalog listing page. These interventions led to measurable uplifts—a 5% increase in daily active users from the app icon change, a 12% rise in click-through rates from the discount widget, and a 9% boost in orders per daily active user from the price drop animation. Additionally, I developed a real-time Daily Deals User Dashboard to monitor key metrics like DAU, DTU, GMV, and NMV, enabling rapid identification and resolution of performance aspects during high-traffic periods. For the seller side, I created an Opt-in Tracker and analytics dashboard to streamline seller participation, automate eligibility checks, and improve targeting efficiency, resulting in faster opt-in times and higher conversion rates. Other initiatives included implementing a slanted sale tag on catalog images to improve

discount visibility and conducting a sale name revamp survey that increased brand recall and purchase intent.

**Tool used (Development tools - H/w, S/w) :** SQL, Python and ABacus

**Objectives of the project :** To increase user engagement and sales during flagship sale events at Meesho by running A/B experiments and building real-time dashboards. The project aims to optimize app features—such as app icon changes, discount tags on the recently viewed widget, and price drop animations—to boost metrics

**Major Learning Outcomes :** Data-Driven Decision Making and Experimentation, Operational Insights and Dashboard Utility and Behavioral Insights and User-Centric Design

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Uncertainty regarding the job security and position, (randomly company told us that product position is not there, we were shifted to Business Analytics)

Relaxed and balanced work environment

**Academic courses relevant to the project :** Database and structures, CS F111

**PS-II STATION : MEESHO - APM ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: MUKUL SHARMA . (2020B5A40628P)**

Student Write-up

**PS-II Project Title:** Enhancing Prepaid Adoption, Cart Conversion, and Post-Checkout Experience

**Short Summary of work done during PS-II :** During my internship at Meesho, I worked on key initiatives aimed at improving user conversion, prepaid payment adoption, and post-purchase experience. The internship focused on three major opportunity areas: increasing prepaid share, improving cart-to-order conversion, and redesigning the Order Confirmation Page (OCP) to enhance user trust. One of my primary projects involved identifying opportunities to increase prepaid adoption and retention. I analyzed user funnel drop-offs and payment preferences, helped define experiment cohorts, and supported the design of targeted nudges to encourage users to pay via UPI and other prepaid modes. The goal was to reduce COD dependency and improve Meesho's unit economics by driving repeat prepaid behavior. Another project focused on increasing cart conversion using price-drop nudges. I worked on an initiative that detected when products in a user's cart had dropped in price since being added. We designed on-app and

off-app communication (like WhatsApp notifications and in-cart badges) to inform users of the price drops, thereby reigniting buying intent. This led to measurable improvements in order rate and app engagement. Lastly, I contributed to the OCP redesign project. We aimed to improve the user's post-purchase clarity by reducing noise, highlighting key information (like delivery dates and savings), and addressing aspects like low affordance and redundant content. This project focused on improving trust and reducing post-order anxiety. Through this internship, I developed strong skills in product thinking, funnel analysis, experimentation, SQL, and user-centric design.

**Tool used (Development tools - H/w, S/w) :** SQL, Python, Jira, Metabase

**Objectives of the project :** Increase Prepaid Share Improve prepaid order adoption by enhancing user trust and simplifying payment flows. Drive retention of users who previously paid via UPI or other prepaid methods. Improve Checkout Conversion Reduce drop-offs at the payment stage by optimizing the UI, providing better clarity on savings, and reinforcing trust signals. Reignite Buying Intent through Price-Drop Nudges Leverage cart behavior and price fluctuations to trigger contextual nudges that encourage users to complete purchases. Enhance Post-Purchase Experience on OCP Increase user satisfaction and clarity after order placement by redesigning the Order Confirmation Page to highlight key information like delivery date, savings, and next steps. Reduce RTOs and Strengthen Prepaid Stickiness Align product interventions with measurable improvements in prepaid retention and reduction in Return-to-Origin rates. Enable Data-Driven Decision Making Support all changes through robust experiment design, cohort analysis, and funnel diagnostics to ensure measurable business impact.

**Major Learning Outcomes : Major Learning Outcomes:**

Experimentation & A/B Testing: Gained hands-on experience in setting up, tracking, and analyzing large-scale product experiments, including treatment-control comparisons and uplift calculations.

Data Analysis & SQL Proficiency:

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** During my internship at Meesho, I experienced a fast-paced, collaborative, and impact-driven work environment. The company follows a user-first philosophy and fosters a strong culture of ownership, experimentation, and data-backed decision-making. Despite being an intern, I was encouraged to take complete ownership of projects, contribute to strategic discussions, and drive experiments that impacted live user funnels.

The working atmosphere was transparent and supportive. Regular syncs, buddy check-ins, and mentorship from product and analytics teams ensured that learning was continuous and constructive. The cross-functional setup enabled frequent collaboration with engineers, designers, analysts, and business teams, helping me develop a broader understanding of how product decisions are made and executed in real-world conditions.

My expectations from the company included gaining exposure to a real-world product environment, improving my opportunity-solving and analytical thinking, and learning to structure user opportunities and work towards measurable outcomes. These expectations were not only met but exceeded. I received regular feedback, hands-on support, and meaningful responsibilities that pushed me to grow professionally.

The opportunity to work on high-impact projects—like increasing prepaid share, improving cart conversions through price-drop nudges, and redesigning the Order Confirmation Page—allowed me to learn how to tie business goals to user outcomes. Overall, Meesho's dynamic and inclusive work culture, paired with its emphasis on solving for Bharat users, provided a rich and rewarding internship experience that aligned perfectly with my learning and growth goals.

**Academic courses relevant to the project :** Analytics of Supply Chain Management

**PS-II STATION : MEESHO - APM ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: PRANETA MAHAWAR . (2021A4PS1432P)**

Student Write-up

**PS-II Project Title:** Product Management in WaaS (Warehouse as a Service)

**Short Summary of work done during PS-II :** Major Deliverables: ▪ Selection and evaluation of metrics to monitor performance (Sales, Fulfilled orders, Warehouse servicing aspects etc.) ▪ Development of an entirely new Machine Learning based Forecasting algorithm to predict demand at a PIN Code level of granularity. ▪ Improvement in Speed and hence Customer Retention and reduction in returned orders (RTO).

**Tool used (Development tools - H/w, S/w) :** SQL (Metabase, Zeppelin, Superset), Python (Colab, VS Code), Excel

**Objectives of the project :** Improve the speed and retention of the warehousing service

**Major Learning Outcomes :** Team work, meeting deadlines, taking up new tasks on priority, war- rooms, learning new software rapidly.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company : -**

**Academic courses relevant to the project :** Yes

**PS-II STATION : MEESHO ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: SHREYASH SINGH . (2020B1A11906P)**

Student Write-up

**PS-II Project Title: ENHANCING CREATOR GROWTH AND CREATOR EXPERIENCE ON MEESHO CREATOR CLUB**

**Short Summary of work done during PS-II :** During Practice School-II at Meesho, I worked on the Content Commerce team to supercharge creator engagement and monetization. First, I led a root cause analysis of the AutoDM system—automated DMs sent to users who commented— identified key failure modes, and rolled out retry logic and error-specific fallbacks that lifted AutoDM success rates by 5%, contributing to a 5% NMV increase. Next, I designed and deployed an SQL-backed A/B experiment to compare our in-app tutorial videos against personalized WhatsApp nudges; the tailored WhatsApp flows increased the proportion of sale-generating creators by 10%. Finally, I scoped and executed the integration of Facebook as a new affiliate channel, collaborating with internal and external partners to onboard regional creators; this initiative delivered a 25% GMV uplift within the first three weeks. Throughout, I balanced technical implementation with creator research and feedback loops, ensuring that every solution was both technically sound and grounded in real user needs.

**Tool used (Development tools - H/w, S/w) :** Demandingware: Standard development laptops (Windows/Mac), Android test devices Software & Platforms: SQL, Looker, AppsFlyer, Google Sheets, Redis, Postman, Slack, JIRA, WhatsApp Business API, Facebook Business Manager

**Objectives of the project :** To enhance the growth of creators and their experience on the affiliate platform of Meesho called as Meesho Creator Club.

**Major Learning Outcomes :** Gained proficiency in data-driven root cause analysis, identifying system inefficiencies in AutoDM and implementing targeted fixes.

Learned to design, execute, and interpret A/B experiments using SQL-based models and analytics tools, driving actionable c

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** My Practice School-II at Meesho took place in a dynamic, metrics-driven environment that blended a startup ethos with the scale of a leading marketplace. Cross-functional squads of engineers, product managers, data analysts, and designers worked side-by-side—both in person and virtually—using agile sprints, daily stand-ups, and rapid prototyping to iterate on creator tools and integrations. From Meesho, I expected clear ownership of end-to-end projects, hands-on mentorship from

senior leaders, and the autonomy to test hypotheses and learn from outcomes. The company delivered on these expectations by fostering a culture of constructive feedback, accepting smart failure as part of innovation, and providing structured knowledge-sharing sessions. This supportive yet high-velocity setting enabled me to onboard quickly, collaborate seamlessly across teams, and drive measurable impact from day one.

**Academic courses relevant to the project :** Technical Report Writing

**PS-II STATION : MEESHO ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: DEVARSH KUMBHARE (2021A3PS2975G)**

Student Write-up

**PS-II Project Title:** Trust and Safety Team - FE Face Recognition Pipeline, Orders Team - ODP Comms Improvements, Orders Team - First Promise ODD breach solve

**Short Summary of work done during PS-II :** Various tasks, regarding Comms improvement on the users side, helping maintain consistency and analysis on certain metrics in the system, Building a data pipeline and its infrastructure to support face recognition and data flow

**Tool used (Development tools - H/w, S/w) :** Java, Springboot, Mac, Various IDEs, GO, Kafka, Redis, Mongo, ElasticSearch, Junit, Mockito

**Objectives of the project :** Various tasks, regarding Comms improvement on the users side, helping maintain consistency and analysis on certain metrics in the system, Building a data pipeline and its infrastructure to support face recognition and data flow

**Major Learning Outcomes :** Java, writing production code, code testing, system design, scalability, on-calls and alerting, CI-CD, debugging on a production level

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The work environment was solid and we were given ample of time to ramp-up, skill up, some initial tasks to help us get going in that regards and get introduced to the company culture. Since that point there have been high expectations and high standards for the code we write, the testing we do, the scale we work at to impact the users, the expectations from the company are simple, to exponentially go, pickup tasks and deliver them sufficiently while communicating the technical knowhow to solve any opportunities on the go.



**Academic courses relevant to the project :** OOPs, OS, DSA, ML

**PS-II STATION :** MEESHO ,BENGALURU

**FACULTY NAME:** SANDEEP KAYASTHA .

**STUDENT NAME:** VITHALANI MEET AMITKUMAR . (2021A7PS0555P)

Student Write-up

**PS-II Project Title:** Master-Slave DB integration, ZooKeeper Node Management APIs and price update flow migration.

**Short Summary of work done during PS-II :** The project focused on enhancing system scalability, configuration management, and performance optimization through three key backend engineering tasks. First, Master-Slave Database integration was implemented to separate read and write operations, improving database efficiency, availability, and overall application performance. Second, a comprehensive set of APIs was developed to manage ZooKeeper node configurations, enabling streamlined creation and updates of critical distributed configuration data via secure and well-structured Developed interactive user interfac

es. Finally, a major migration of the price update flow was carried out from a legacy system to a more modular and reliable architecture. This flow was responsible for updating millions of product prices daily, making the migration a high-priority, business-critical initiative. Each of these efforts played a vital role in strengthening the system's reliability, maintainability, and scalability, aligning with long-term engineering goals.

**Tool used (Development tools - H/w, S/w) :** Backend Dev, Java, Springboot, ElasticSearch, MySQL, Kafka, GoLang, Redis, Postman, IntelliJ

**Objectives of the project :** 1. To implement Master-Slave DB integration 2.To create APIs to create and update ZooKeeper Node. 3. To migrate the price update flow.

**Major Learning Outcomes :** Backend Dev, Java, Springboot, ElasticSearch, MySQL, Kafka, GoLang, Redis

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was collaborative, fast-paced, and driven by ownership and impact. I was expected to take complete responsibility for assigned tasks, from understanding opportunity statements

to delivering scalable solutions. Regular code reviews, team syncs, and mentorship from senior engineers fostered a culture of continuous learning and improvement. The company encouraged proactive communication, innovation, and a strong focus on writing clean, efficient code aligned with business goals.

**Academic courses relevant to the project :** Database Management Systems, Operating Systems, Computer Networks, Data Structures and Algorithms, Object Oriented Programming

**PS-II STATION : MEESHO ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: SHARAD ARORA (2021A7PS1427G)**

Student Write-up

**PS-II Project Title:** Design and Development of an Approval Workflow, and Live Query Monitoring tool. Enabling config as code withing a standalone repository to support CI/CD and maintainability

**Short Summary of work done during PS-II :** During my internship, I executed four high-impact projects focused on improving system reliability, operational efficiency, and data governance. I led the migration to a Configuration as Code (CaC) model, transforming manual infrastructure changes into a secure, automated Git-based workflow using Go and CI/CD, which eliminated a major source of production risk. To enhance developer productivity, I built a modular internal admin panel in Python and Streamlit. This centralized critical tools, including a real-time database query viewer and an alert management system that integrated with the Superset API. In the data engineering domain, I developed an automated data backfill pipeline using Scala, Airflow, and Databricks. This solved a critical data availability aspect by ensuring new queries were immediately populated with complete historical data, accelerating analytics. Finally, I designed and implemented a governed approval workflow for SQL queries, creating new database schemas and APIs to automate validation and deployment. This system enhanced data integrity and significantly reduced deployment risks for the business analysis team. Collectively, these projects delivered measurable improvements in platform stability, security, and developer velocity.

**Tool used (Development tools - H/w, S/w) :** Python, Golang, Cursor, Apache Zookeeper, Apache Superset, Apache Spark, Databricks, google cloud storage, Git, Jenkins

**Objectives of the project :** Automate Manual Processes: To replace error-prone, manual workflows with robust, automated systems that improve reliability and efficiency. Enhance System Governance & Security: To establish clear, auditable processes for all production changes, improving security and simplifying compliance. Improve Developer Velocity: To build tools and pipelines that reduce operational overhead and empower engineers to work faster and more

safely. Strengthen Data Integrity & Availability: To ensure critical business data is complete, trustworthy, and readily available for analytics and decision-making.

**Major Learning Outcomes :** Backend Development: Engineered services and tools using Go and Python

Data Engineering: Built pipelines with Scala, Spark and Airflow

Devops and Automation: Implemented Configuration as Code (CaC) principles using Git and CI/CD to manage production system

### **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** At Meesho, the working environment is dynamic, collaborative, and ownership-driven. The company follows a 5- day work-from-office model, which fosters strong in-person collaboration and team bonding. Regular alternate-day stand-up meetings ensure clear communication, alignment on goals, and timely resolution of blockers, while still giving individuals the flexibility to manage their tasks independently. A strong culture of ownership is central to the Meesho experience—interns and full-time employees alike are encouraged to take full responsibility for their projects, from ideation to execution. This cultivates a sense of accountability and empowers individuals to drive impact across teams. Meesho operates with a set of company-wide mantras that emphasize first- principles thinking, moving fast, and keeping the user at the center of everything. These values shape both strategic decisions and daily work, pushing teams to innovate and solve real opportunities at scale. As an intern, the expectations are clear: be proactive, think deeply, communicate openly, and own your outcomes. In return, Meesho provides a fast-paced learning environment, supportive mentors, and exposure to real business challenges, ensuring a valuable and enriching experience.

**Academic courses relevant to the project :** Database Systems, Software Development, Operating Systems, Cryptography (Hashing etc),

**PS-II STATION : MEESHO ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: SANIYA MATHUR (2021A7PS2553G)**

Student Write-up

**PS-II Project Title:** Quality Dashboard Revamp

**Short Summary of work done during PS-II :** The main task of the internship was that of the revamp of the Quality Dashboard of the supplier panel. For this I was to create an entirely new service. The task involved contacting and collaborating with various other teams along with

solutioning and timeline discussions. The task gave a lot of recognition and responsibility. I was given full ownership and was treated as an equal in all discussions.

**Tool used (Development tools - H/w, S/w) :** Springboot, MongoDB, MySQL, Redis, Kafka, Elasticsearch

**Objectives of the project :** The main aim was to revamp the entire quality dashboard panel of the supplier panel of meesho

**Major Learning Outcomes :** API creation, structural coding, deployment process, testing

**Details of Papers/patents : N.A.**

**Brief Description of working environment, expectations from the company :** The work environment is very friendly with flexible working hours and almost no interference in one's work. Everyone is very helpful and welcoming.

**Academic courses relevant to the project :** DBMS, DSA, OOP

**PS-II STATION : MEESHO ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: PRITHVINANDAN KUNJITHAYA (2021A7PS3051G)**

Student Write-up

**PS-II Project Title:** Enhancing Backend Efficiency through Caching Strategies and SDUI Architecture

**Short Summary of work done during PS-II :** During the internship, I worked with the backend team on performance optimization and architectural enhancements across multiple services. As an introductory task, I implemented a notification system to gain hands-on experience with the company's tech stack. I then developed an in-memory caching layer using Caffeine beneath an existing distributed cache to reduce latency for frequent requests by minimizing network overhead. Following this, I contributed to the migration of the Reels homepage widget to a Server-Driven UI (SDUI) architecture, enabling dynamic UI updates and reducing the computational load on client devices. I also designed the API flow for the SDUI-based Reels Product Card, facilitating the display of products featured within a reel. Lastly, I implemented a distributed caching solution for the Wishlist feature, where user wishlists were cached based on recency to optimize retrieval performance.

**Tool used (Development tools - H/w, S/w) :** Software - Java Spring framework, Redis, Elasticsearch, Apache Kafka, Git

**Objectives of the project :** 1. Design and Implementation of in-memory caching solution using Caffeine 2. Migration of Homepage Reels Widget to Server Driven UI Architecture 3. Design of API flow for SDUI Reels Product Card 4. Design and Implementation of distributed caching for fetching user Wishlist

**Major Learning Outcomes :** Software development lifecycle, Clean code practices, Version control,  
Software - Java Spring framework, Redis, Elasticsearch, Apache Kafka, Git

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The working environment at Meesho was very supportive, fostering a culture of professionalism, collaboration, and accountability. The team members were very approachable and always helped out in case of any blockers. The company expected a high level of ownership over the tasks assigned to the interns and fostered a culture of learning and improvement.

Overall, the environment encouraged continuous learning and contribution, with clear expectations for performance, accountability, and active engagement in the role.

**Academic courses relevant to the project :** Computer Network, Database Systems, Object Oriented Programming, Data Structures and Algorithms, Operating Systems

**PS-II STATION : MEESHO ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: SAMARTH NASNODKAR (2021A7PS3204H)**

Student Write-up

**PS-II Project Title:** Delivery Platform Expansion: Rider API & Core Self-Pickup Feature Development

**Short Summary of work done during PS-II :** During my internship at Meesho, I worked on multiple high-impact backend and data-driven projects. I developed scalable RESTful APIs using Java Spring Boot, replacing legacy systems and improving maintainability, performance, and developer experience. I contributed to the deprecation of tightly coupled internal APIs, performing system audits, stakeholder coordination, and phased migration planning. In the data domain, I built a high-accuracy machine learning model to predict state information from pincodes, improving address validation and logistics routing accuracy. This involved extensive

data analysis, feature engineering, model training, evaluation, and deployment as a production-ready API. Towards the end of my internship, I designed a solution for optimizing last-mile delivery operations. This included creating zone-based routing algorithms and dynamic partner prioritization models to reduce delivery costs and improve SLA adherence. I was involved in system design, partner API integration, observability setup, and building proof-of-concept implementations. Throughout the internship, I gained hands-on experience in system design, data-driven decision-making, and cross-functional collaboration, while contributing to business-critical projects that directly impacted operational efficiency.

**Tool used (Development tools - H/w, S/w) :** Languages/Frameworks: Java, Spring Boot, Python Technologies: Kafka, Redis, MySQL, Elasticsearch ML Tools: XGBoost, Scikit-learn Monitoring: Prometheus, ELK Stack (Elasticsearch, Logstash, Kibana) Collaboration: Git, JIRA, Confluence Demandingware: Standa

**Objectives of the project :** Replace legacy APIs with scalable solutions. Improve pincode-state mapping accuracy. Optimize last-mile delivery using dynamic routing. Enhance system monitoring and observability. Support scalability for business growth.

**Major Learning Outcomes :**

1. System design and architecture.
2. End-to-end API development.
3. ML model building & deployment.
4. Cross-team collaboration.
5. Real-world opportunity solving in logistics.

**Details of Papers/patents :** No papers or patents were published as part of this internship.

**Brief Description of working environment, expectations from the company :** The working environment at Meesho was highly collaborative, fast-paced, and focused on solving real-world opportunities at scale. I worked closely with experienced engineers, product managers, data scientists, and cross-functional teams, which provided a holistic understanding of how technical solutions align with business goals. The team culture encouraged open communication, ownership, and continuous learning, allowing me to contribute actively to critical projects from day one.

My expectations from the company were to gain hands-on experience in large-scale backend development, system design, and machine learning applications. Meesho provided ample opportunities to work on impactful projects involving modern technologies such as Spring Boot, Kafka, Redis, and machine learning models for data accuracy improvements. I was given autonomy to take ownership of my work while also receiving continuous mentorship and constructive feedback from my peers and mentors. The exposure to live production systems, real-time opportunity-solving, and strategic discussions on scalability, optimization, and cost-efficiency greatly enriched my understanding of engineering in a high-growth startup environment. Overall, the internship provided a perfect blend of technical challenges and professional growth, exceeding my expectations.

**Academic courses relevant to the project :** Data Structures and Algorithms, Database Management Systems, Operating Systems, Distributed Systems, Machine Learning, Software Engineering, Computer Networks.

**PS-II STATION : MELSS ,CHENNAI**

**FACULTY NAME:** SUPARNA CHAKRABORTY .

**STUDENT NAME:** SAKETH VENKAT KURADA (2021AAPS1520H)

Student Write-up

**PS-II Project Title:** Anomalous Vibration Detection using Embedded Machine Learning protocols

**Short Summary of work done during PS-II :** Demandingware selection and MCU design for robust environment conditions, while maintaining power required to run on board ML models post quantization to detect patterns. Work was also done to keep device connectable from server to ensure OTA updates. Also wrote several mathematical transforms including FFTs and EKF's to derive required evaluation metrics while accounting for environmental drift factors.

**Tool used (Development tools - H/w, S/w) :** STM32CUBE IDE, MX, PRGMR, ST BSPs, Python 3.10, ESP IDF, Cadence, KiCAD etc

**Objectives of the project :** To accurately classify anomalous motor vibrations caused due to improper running of industrial motors.

**Major Learning Outcomes :** Drawing board to deployment prototyping pipeline of devices while adhering to ISO standards. Also helped me brush up my embedded C and Python knowledge.

**Details of Papers/patents :** Device is currently being sold to end consumers in sensitive production areas covered under NDA.

**Brief Description of working environment, expectations from the company :** Formal work environment with friendly staff that are more than happy to assist you, but will expect you to do learning on your own. Lots of grassroots experience to be had, but has the expected pains of a medium sized company, especially when it comes to part allocation.

**Academic courses relevant to the project :** DSP

**PS-II STATION : MICRON TECHNOLOGY- FD, HYDERABAD ,HYDERABAD**

**FACULTY NAME: PAWAN SHARMA .**

**STUDENT NAME: PRIYANKA RANJAN (2021A3PS2735H)**

Student Write-up

**PS-II Project Title:** Automated Detection of Unsupported Firmware Versions

**Short Summary of work done during PS-II :** I worked in the backend team within Test Solutions Department. I participated in program releases and routine tasks present in the team. I was also involved in multiple automation projects.

**Tool used (Development tools - H/w, S/w) :** Python, Shell

**Objectives of the project :** Shift left project intended to produce savings in time

**Major Learning Outcomes :** Gained an experience in scripting and understood its significance in production environments

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The team was very welcoming and involved me in all activities including learning sessions and routine work. Overall, the working environment was nice.

**Academic courses relevant to the project :** C Programming

**PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD**

**FACULTY NAME: SINDHU S .**

**STUDENT NAME: L P SHREYA (2023H1030061G)**

Student Write-up

**PS-II Project Title:** Updating Test flows and data analysis Practice School – II

**Short Summary of work done during PS-II :** The project focuses on enhancing the reliability and efficiency of NAND flash memory testing through the development and refinement of probe test flows and failure analysis techniques. It reflects the integration of academic knowledge with real world engineering challenges and aims to contribute meaningfully to the ongoing efforts in yield improvement and product reliability within the semiconductor industry



**Tool used (Development tools - H/w, S/w) :** Tools used : Git, Vscod and Mobaxterm. Language used to code :C++ .

**Objectives of the project :** This project focuses on the understanding of the testcases designed to verify the functionality of various component of a NAND flash memory. The verification included the ability of the cells to accurately store and retrieve data, correctly perform memory operations such as read, program and erase cycles, and to withstand various stress conditions without any loss in the information. The importance of such rigorous checks is to ensure the reliability and longevity of the product to meet the targets of the end customers.

**Major Learning Outcomes :** This internship has provided me with learnings from the basics of NAND

Flash Memory and Probe Testers. The takeaways from the internship were where I concentrated on synchronizing updates between the C1 and WLR. I learned to identify necessary changes.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** One of the things I really appreciate about working here is the positive and supportive work environment. There's a strong sense of teamwork and mutual respect, and I genuinely feel that my contributions are valued. The open communication and willingness to help each other out make it a great place to grow both personally and professionally.

**Academic courses relevant to the project :** C++ coding, OS, Computer Architecture.

**PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD**

**FACULTY NAME:** SINDHU S .

**STUDENT NAME:** MAYANK YADAV (2023H1240058H)

Student Write-up

**PS-II Project Title:** NAND Flash Memory

**Short Summary of work done during PS-II :** Learned Various Technical skills like linux environment , system verilog , scripting ,uvm etc

**Tool used (Development tools - H/w, S/w) :** Verdi , etx , gvim

**Objectives of the project :** Developing Test cases

**Major Learning Outcomes :** Learned Verification tools , debugging of the testcases with hands on System Verilog and UVM experience

**Details of Papers/patents :** nil

**Brief Description of working environment, expectations from the company :** It was good and very motivating and supporting throughout the internship.

**Academic courses relevant to the project :** yes

**PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD**

**FACULTY NAME:** SINDHU S .

**STUDENT NAME:** VADDI LAKSHMI SATYA SAI SAROJINI (2023H1240065H)

Student Write-up

**PS-II Project Title:** Design Verification of HBM

**Short Summary of work done during PS-II :** In the course of PS II, we were first given introduction to memory and the kind of work that has to be performed in the company. We were given certain amount of time to study all the materials and finally we were also given hands-on on the work that we are to be performed after joining.

**Tool used (Development tools - H/w, S/w) :** Nvim Editor, Cadence Virtuoso, Vsim simulator

**Objectives of the project :** To learn about the tools and software that are involved to perform design verification

**Major Learning Outcomes :** Learnt about how verification of design is done on real time examples.

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** In the office we were given access to all learning materials and support from team mates.

**Academic courses relevant to the project :** VLSI Design, VLSI Architecture

**PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD**

**FACULTY NAME: SINDHU S .**

**STUDENT NAME: RAJEEV NANDAN SINGH (2023H1240068H)**

Student Write-up

**PS-II Project Title:** Signal Integrity of mNAND package.

**Short Summary of work done during PS-II :** During my internship in the Signal Integrity domain, I developed a strong foundation in high-speed signal behavior by studying the fundamentals from "BE the Signal" by Dr. Eric Bogatin. My primary project involved Signal Integrity analysis of an mNAND package. I started with a detailed review of the package layout and proceeded to create an accurate stackup using the package design files. This was followed by delay extraction and S- parameter analysis to evaluate the frequency-domain behavior of critical signal paths. I then performed transient simulations to assess the time-domain response of ONFI and UFS interfaces. By analyzing the waveform behavior, I generated eye diagrams to evaluate signal margins and ensure compliance with interface standards. I closely examined parameters like eye height, width, jitter, and noise, which are essential indicators of signal quality. Based on these insights, I proposed optimization techniques such as impedance matching, termination tuning, and stackup modifications to improve the eye opening and overall signal integrity performance. This hands-on experience enhanced my understanding of high-speed interconnects and their impact on system reliability, preparing me for advanced roles in SI/PI analysis and high-speed digital design.

**Tool used (Development tools - H/w, S/w) :** SIWAVE , Cadence Allegro , Ansys Electronics desktop , ADS, Waveview, wcode

**Objectives of the project :** To learn Complete process involve for signal Integrity of package like mNAND and LPDDR packages.

**Major Learning Outcomes :** Learn how to do complete signal Integrity analysis and what and how to fix aspect in design file and finding what might be possible in design and what are losses and what are the factor that affecting our eye opening.

**Details of Papers/patents : No**

**Brief Description of working environment, expectations from the company :** Environment was good , even the work culture in Micron is good , where you can ask any doubt to teammate even if you basics doubt they won't be hesitate and even manager are also interactive and helpful.

**Academic courses relevant to the project :** RF microwave , RF Microelectronics .

**PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD**

**FACULTY NAME: SINDHU S .**

**STUDENT NAME: PRATHAM SHARMA (2023H1240068P)**

Student Write-up

**PS-II Project Title: NA**

**Short Summary of work done during PS-II :** Designed and verified key operations of NAND memory, including erase, read, and program functionalities. Developed Python automation scripts to streamline test execution and result analysis, improving overall verification efficiency. Utilized SystemVerilog assertions (SVA) to validate design correctness and ensure compliance with expected behaviors. Employed C programming on the compiler side to support low-level interactions and functional testing of the memory controller. Integrated automated flows combining Python, C, and SystemVerilog to enhance testing coverage and debugging processes.

**Tool used (Development tools - H/w, S/w) :** Python, Perl, SV, Linux CLI, interl softwares(confidential)

**Objectives of the project :** The objective of the project was to design and verify key NAND memory operations, including erase, read, and program functionalities.

**Major Learning Outcomes :** Gained hands-on experience in designing and verifying NAND memory operations such as erase, read, and program. Applied SystemVerilog for developing verification environments, and used Perl and Python to automate both design validation and test processes.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** At Micron, the working environment was highly collaborative, innovative, and technically driven. The team encouraged open communication and knowledge sharing, with strong support from mentors and senior engineers. There was a clear emphasis on continuous learning, process improvement, and maintaining high standards in design and verification quality.

My expectations from the company were to gain hands-on experience in real-world NAND Flash memory development, learn industry best practices in verification and automation, and enhance my skills in SystemVerilog, Python, and C programming. These expectations were met through active involvement in meaningful projects, excellent guidance from the team, and access to state-of-the-art tools and methodologies.

**Academic courses relevant to the project :** VLSI Design

**PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD ,HYDERABAD**

**FACULTY NAME: SINDHU S .**

**STUDENT NAME: VEMPATI SRIDHAR (2023H1400100G)**

Student Write-up

**PS-II Project Title: Fault Replacement Circuit for SRAM**

**Short Summary of work done during PS-II :** This project focuses on improving the reliability of SRAM by designing a fault replacement circuit that can detect and bypass faulty memory columns. SRAMs are used in many high-speed systems like processors and cache memory, but even a small number of faulty bits or columns can impact their performance or cause failure. To address this, the project introduces a simple yet effective technique where spare columns are added to the SRAM array. During a built-in self-test (BIST), faulty columns are identified, and the circuit automatically remaps them to these spare columns using multiplexers and a fault table. This allows the SRAM to function correctly even when some parts are defective. The design was written in Verilog and tested through simulation, with a focus on keeping the area and timing overhead as low as possible. The goal was to ensure that this fault-tolerant mechanism could be easily integrated into real-world systems without affecting performance or increasing chip size significantly. Overall, this project helps improve yield and extend the usable life of memory chips, making it especially useful in applications where reliability is critical, like automotive systems or mission-critical embedded devices.

**Tool used (Development tools - H/w, S/w) :** Tool usage was not required since the design is purely circuit-based.

**Objectives of the project :** To design and implement a fault replacement circuit to enhance the yield and reliability of SRAM devices.

**Major Learning Outcomes :** Understand SRAM operation and common fault mechanisms. Identify and classify various types of SRAM faults.

Design and simulate basic digital logic circuits for fault detection.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The working environment was collaborative, supportive, and technically enriching. I was part of a well- structured team where communication was open and guidance was readily available whenever needed. The team encouraged curiosity and continuous learning, which helped me adapt quickly to the workflow. Regular team meetings, sync-ups, and review sessions provided clarity on tasks and ensured alignment with the project goals. The company maintained a professional and inclusive culture, promoting both individual growth and teamwork. I was given responsibilities that challenged me and helped strengthen my

opportunity-solving and technical skills. The environment also encouraged initiative — new ideas and suggestions were welcomed and often discussed with seriousness.

In terms of expectations from the company, I looked forward to a learning-focused atmosphere, timely and constructive feedback, and the opportunity to work on meaningful, real-world opportunities. I also expected exposure to industry-standard practices, tools, and workflows, which would prepare me better for a full-time role in the semiconductor industry. Opportunities for mentorship, hands-on project experience, and interaction with experienced professionals were especially valuable.

Overall, the environment was conducive to growth, both technically and personally, aligning well with my expectations for a productive and insightful internship experience.

**Academic courses relevant to the project :** VLSI Design, VLSI Architecture

**PS-II STATION :** MICRON TECHNOLOGY- HD, HYDERABAD ,HYDERABAD

**FACULTY NAME:** SINDHU S .

**STUDENT NAME:** MARAGANI AVINASH (2023H1400121H)

Student Write-up

**PS-II Project Title:** Analog Simulations

**Short Summary of work done during PS-II :** Started with learning about DDR5 and then learned System Verilog and wrote a testbench and then perform both digital and analog simulations and at the end wrote scripts related to analog simulations

**Tool used (Development tools - H/w, S/w) :** H/w - Cadence Virtuoso, S/W - System Verilog and Python

**Objectives of the project :** To run analog simulations and write scripts

**Major Learning Outcomes :** Learned about DDR5 and also learned to run analog simulations and write scripts

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** The work environment was very good and the company expects us to learn about the memory in detail

**Academic courses relevant to the project :** Digital VLSI Design

**PS-II STATION : MICRON TECHNOLOGY- HD, HYDERABAD.**

**FACULTY NAME: SINDHU S .**

**STUDENT NAME: KUMMETHA DEEPTHI (2023H1400127H)**

Student Write-up

**PS-II Project Title:** Row Hammer Refresh

**Short Summary of work done during PS-II :** I have learnt that RowHammer is a demandingware vulnerability where repeated access to certain DRAM rows causes bit flips in nearby rows. This happens due to electrical interference, even without directly accessing the victim rows. Advanced attacks like Half-Double and Blacksmith can bypass defenses like Target Row Refresh (TRR). Resilient memories like MRAM and ReRAM are less prone to such aspects due to their non- charge-based storage. RowHammer becomes more severe as DRAM technology scales and cells get denser. Overall, I understood the need for improved memory architecture, smarter refresh, and access monitoring to mitigate this threat.

**Tool used (Development tools - H/w, S/w) :** Cadence,simvision,linux

**Objectives of the project :** To learn about DRAM and how to mitigate the possibility of data corruption.

**Major Learning Outcomes :** Gained hands-on experience in VLSI design and verification using industry-standard tools.

Improved technical, opportunity-solving, and debugging skills through real-time project work. Enhanced communication, adaptability, and professionalism in a corporate environment.

**Details of Papers/patents : Na**

**Brief Description of working environment, expectations from the company :** During my internship at Micron Technology, I had the opportunity to experience a highly professional and innovation-driven work environment. The company fosters a collaborative and inclusive culture, where learning and growth are strongly encouraged.

**Academic courses relevant to the project :** Digital electronics, Vlsi design,advance vlsi design,vlsi architecture,reconfigurable computing.

**PS-II STATION : MITIGATA (ALPHAWAVE TECHNOLOGIES PVT.LTD., ) ,BENGALURU**

**FACULTY NAME: ARINDAM ROY .**

**STUDENT NAME: SUGAM CHAUHAN (2021A4PS2405G)**

**PS-II Project Title:** Consultant

**Short Summary of work done during PS-II :** During my internship at Mitigata, India's leading smart cyber insurance provider, I contributed to a team focused on protecting organizations from evolving cyber threats and financial losses. Mitigata merges cyber security, compliance, and insurance into a single solution, offering services such as general and cyber insurance, advanced security tools, and compliance with international standards. As a Procurement Associate and Cybersecurity Consultant, I sourced vendor quotes, advised businesses on cybersecurity and compliance, onboarded new partners, and managed client relationships from initial contact to deal closure. I participated in over 80 client engagements, helped close more than 30 deals, and represented the company in key presentations. My efforts reduced procurement turnaround time from three days to 24 hours and facilitated partnerships with six major cybersecurity OEMs. These contributions led to a 30% network expansion, a 25% increase in closed deals, cost reductions, and improved client satisfaction. I also gained hands-on experience with security tools, risk assessments, and compliance processes, while building a professional network and developing strong opportunity-solving skills by addressing real-world business challenges and supporting Mitigata's mission to be the first line of defense for Digital India.

**Tool used (Development tools - H/w, S/w) :** Hubspot, Excel, XDR

**Objectives of the project :** Help business suggest the right cyber security tools

**Major Learning Outcomes :** Connection, consulting, cyber security, sales

**Details of Papers/patents :** N/A

**Brief Description of working environment, expectations from the company :** The culture emphasizes collaboration, inclusivity, and respect for diverse perspectives, with teams composed of IT professionals, sales consultants, cybersecurity experts, and compliance specialists. Employees benefit from a flexible work environment that values work-life balance and personal well-being, while also encouraging continuous learning and professional development. The company fosters a performance-driven atmosphere where initiative, opportunity-solving, and adaptability are highly valued, and team members are encouraged to contribute ideas and take ownership of their work. Expectations from the company include a strong sense of responsibility, effective teamwork, and a proactive approach to challenges. Interns and employees are expected to engage actively in projects, build and maintain professional relationships, and deliver results that align with Mitigata's mission to protect clients from cyber risks. The company also provides mentorship, networking opportunities, and exposure to real-world business challenges, ensuring that every individual has the support and resources needed to grow and succeed within the organization.

**Academic courses relevant to the project :** Yes



**PS-II STATION : MITRA ROBOT INDIA PVT LTD ,BENGALURU**

**FACULTY NAME: SANGEETHA VISWANATHAN .**

**STUDENT NAME: KSHITIJ AGGARWAL (2021A4PS1920G)**

Student Write-up

**PS-II Project Title: Sales and Customer Outreach in AI-powered Robotics**

**Short Summary of work done during PS-II :** During my Practice School-II internship at Mitra Robot India Pvt. Ltd., I was primarily engaged in sales and marketing operations for AI-based educational bootcamps and enterprise solutions. My responsibilities included lead generation, client communication, CRM updates, and supporting business development efforts through data-driven outreach and campaign management. I actively contributed to promotional activities for key products such as the Modern AI Pro Essentials, Agentic AI, and Vibe Coding bootcamps. I was involved in outreach strategy design, maintaining lead pipelines via Zoho CRM, and supporting follow-up communication to ensure successful conversions. I also helped coordinate client onboarding and inquiries related to training programs. Additionally, I supported company participation at external events, including the Bosch Business Development Forum 2025 held in Bengaluru. My role involved coordinating the company's interactive humanoid robot "Mitra" and assisting with guest interaction and session logistics. These included preparing analytical reports and participating in independent learning activities to ensure continuity in learning outcomes. This internship enhanced my understanding of how AI-based products are marketed and deployed in real-world settings. It also allowed me to build key skills in communication, sales operations, business workflows, and professionalism in workplace settings.

**Tool used (Development tools - H/w, S/w) :** Excel

**Objectives of the project :** Sales and Marketing

**Major Learning Outcomes :** Sales and Marketing

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** The internship began with an initial orientation to the company's operations in AI-driven education and customer engagement products. I was assigned to the business development and marketing team, with a focus on promoting AI bootcamps and handling client outreach. The expectations included generating and closing leads, coordinating with internal teams, and supporting various operational and event-related tasks.

**Academic courses relevant to the project :** Yes

**PS-II STATION :** MOODY'S ANALYTICS ,BENGALURU

**FACULTY NAME:** GAURAV NAGPAL .

**STUDENT NAME:** SARANSH MEHROTRA (2023H1540846P)

Student Write-up

**PS-II Project Title:** Cashflow modelling

**Short Summary of work done during PS-II :** During my Practice School-II at Moody's Analytics, I was part of the Structured Finance team, where I gained hands-on exposure to key financial instruments such as Residential Mortgage-Backed Securities (RMBS), Collateralized Loan Obligations (CLO), and Asset-Backed Securities (ABS). My role primarily involved working on live deals and supporting analytical tasks across various stages of the structured finance lifecycle.

**Tool used (Development tools - H/w, S/w) :** Python, SQL, Moody's internal software

**Objectives of the project :** Learning internal tools and concepts in rmbs cashflow modelling.

**Major Learning Outcomes :** Rmbs, structured finance

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** The working environment at Moody's Analytics was highly professional, collaborative, and conducive to learning. Despite being interns, we were treated as integral members of the team and were entrusted with meaningful tasks that had real impact. The culture promoted open communication, regular knowledge-sharing sessions, and a healthy balance of independence and support. Team members were approachable and always willing to clarify doubts, review work, and provide constructive feedback.

**Academic courses relevant to the project :** Financial analytics, Corporate finance

**PS-II STATION :** MOODY'S ANALYTICS ,BENGALURU

**FACULTY NAME:** GAURAV NAGPAL .

**STUDENT NAME:** ANKIT SRIVASTAVA (2023H1540849P)

Student Write-up

**PS-II Project Title:** Structured Finance- Asset Backed Securities (ABS)

**Short Summary of work done during PS-II :** Modeled 1 deal on a daily basis by reading the legal document of about 300-400 pages (Offering Memorandum), both public and private deals.

**Tool used (Development tools - H/w, S/w) :** Moody's Proprietary Softwares- LoanDQ, SFW (Structured Finance Workstation)

**Objectives of the project :** Cashflow projection of US ABS deals.

**Major Learning Outcomes :** Gained an overall understanding of the securitization process and how Auto Loan ABS, Esoteric ABS and Student Loan ABS deals work by modeling them.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Working environment is absolutely amazing and the entire team is very supportive. Work culture is also very good.

**Academic courses relevant to the project :** Corporate Finance, Financial Modeling, MS Excel, Python, SQL

**PS-II STATION : MORGAN STANLEY - FIRM RISK MANAGEMENT ,MUMBAI**

**FACULTY NAME: AMBATIPUDI VAMSIDHAR .**

**STUDENT NAME: AASTHA SHAILESH PRAJAPATI (2020B5A82284H)**

Student Write-up

**PS-II Project Title:** Model Validation

**Short Summary of work done during PS-II :** Worked on model validation of various ML models like Recommendation engine, multi class classification, ML based fixed income pricing model, FRTB tools validation. Side projects involving metrics where most of the internship time was spent. No learning outcome on the last part. But be hopeful of getting other main BAU projects. Good luck.

**Tool used (Development tools - H/w, S/w) :** Python, Excel, Dataiku, Databricks

**Objectives of the project :** To validate and test the models across Morgan Stanley Wealth Management AIML. Besides, to worked on side automation projects helpful for MS inventory.

**Major Learning Outcomes :** Learnt how to run code flows developed by the first line. Learnt to negotiate to raise limitations. Gained expertise on matplotlib for the matter of fact we created great plots highly appealing to the visuals.

Best part was to learn about FRTB tools com

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** 1. Work environment is great. Great office. Good desks. And great systems. Canteens also really lavish.

**Academic courses relevant to the project :** ML, thats all.

**PS-II STATION : MORGAN STANLEY ADVANTAGE SERVICES - FRM ,MUMBAI**

**FACULTY NAME: AMBATIPUDI VAMSIDHAR .**

**STUDENT NAME: ANIRUDHA TONGE (2020B1A11967G)**

Student Write-up

**PS-II Project Title:** Model Risk management

**Short Summary of work done during PS-II :** Interns are required to develop different plots , visualizations related to different metrics each month. This work has to be done on priority as senior management needs this data to present every month to global management. During remaining time , interns will work as shadow with FTEs on models , performing analysis of models, finding challenges , limitation closures , sensitivity analysis, scenario design , monitoring.

**Tool used (Development tools - H/w, S/w) :** Python , MATLAB , R Studio

**Objectives of the project :** To validate quantitative models and develop metric plots for senior management.

**Major Learning Outcomes :** - Python , Matplotlib

- Data Analysis
- Visualization
- Finance basics
- Quant finance basics

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** - Higher Management expects you to be prompt , fast and always on your toes to do the Metric work as it is of high priority.

- Expectations could be working till late night sometimes.
- In our case we got to work on core work of models at the end of internship.

**Academic courses relevant to the project :** Fundamentals of Finance and Management

Security Analysis and Portfolio Management

Derivatives and Risk Management Financial

Risk Analysis and Management Applied

Econometrics

OOPS

TRW

**PS-II STATION : MORGAN STANLEY ADVANTAGE SERVICES - LEGAL AND COMPLIANCE ,MUMBAI**

**FACULTY NAME: AMBATIPUDI VAMSIDHAR .**

**STUDENT NAME: NANDIGAMA VENKATA KARTHIK (2020B5A41940H)**

Student Write-up

**PS-II Project Title:** Search and Semantics Capabilities in Risk Library (NFRAC)

**Short Summary of work done during PS-II :** Worked on developing a text based recommender system aided by ML language models and knowledge graphs

**Tool used (Development tools - H/w, S/w) :** Python, SPRQL, Excel

**Objectives of the project :** Help develop & test Search and Semantics Capabilities in Risk Library (NFRAC)

**Major Learning Outcomes :** Language modelling, finetuning transformer models, Exposure to ML research.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Good supportive working environment. Great work life balance.

**Academic courses relevant to the project :** Linear Algebra, DSA/FDSA, ML, DL, NLP

**PS-II STATION : MORGAN STANLEY ADVANTAGE SERVICES - LEGAL AND COMPLIANCE ,MUMBAI**

**FACULTY NAME:** AMBATIPUDI VAMSIDHAR .

**STUDENT NAME:** ESHA SHAH . (2021A4PS2529P)

Student Write-up

**PS-II Project Title:** Automate NFR Risk Segments Metric

**Short Summary of work done during PS-II :** 1. Documenting steps for changes that need to be made to the product for internal team. 2. Process optimization using Power BI for saving time and increasing efficiency.

**Tool used (Development tools - H/w, S/w) :** Power BI, Alteryx, Python, Auto IT

**Objectives of the project :** Document creation for user on UI, Automating Data collection and reporting process

**Major Learning Outcomes :** Communication, team work, presentation

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Flexible. Expectations are good communication and presentation skills.

**Academic courses relevant to the project :** Data and analysis concept(Pandas, Numpy, Tableau), Python

**PS-II STATION : MORGAN STANLEY COUNTERPARTY RISK ROLE ,MUMBAI**

**FACULTY NAME:** AMBATIPUDI VAMSIDHAR .

**STUDENT NAME:** KRISHNA CHOPRA . (2020B5AA0719P)

Student Write-up

**PS-II Project Title:** Counterparty Risk

**Short Summary of work done during PS-II :** Work involves on reporting of Market Risk exposures of various Morgan Stanley clients, trading in equities, derivatives and OTC product lines. Gradually the work also transition towards quant side of risk, involving technical skills like Python. You get to work with statistical risk frameworks and get acquainted with macroeconomic scenarios as well.

**Tool used (Development tools - H/w, S/w) :** Python, Power BI, SQL

**Objectives of the project :** To understand market risk objectives.

**Major Learning Outcomes :** Financial product knowledge, market risk scenarios, client strategies

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Growth oriented working environment, with a great learning curve.

**Academic courses relevant to the project :** DRM, SAPM, FRAM

**PS-II STATION : MORGAN STANLEY EXO TRADING ,MUMBAI**

**FACULTY NAME: AMBATIPUDI VAMSIDHAR .**

**STUDENT NAME: SHRISH SANJAY KUTHE . (2020B1A11900P)**

Student Write-up

**PS-II Project Title:** Exotics Trading Assistant

**Short Summary of work done during PS-II :** I worked as part of the Exotics Trading Assistant Team. Main tasks include handling trade bookings and risk adjustments for exotic derivatives such as options, swaps, and structured products. Other tasks include responding to queries raised by finance and operations teams. These include verifying PnL calculations, trade mismatches, incorrect bookings etc. Additionally, I worked on secondary market pricing, ensuring accurate live pricing of exotic products across internal systems and external platforms like Bloomberg and Reuters.

**Tool used (Development tools - H/w, S/w) :** Python, Advanced Excel, Internal Trading Systems

**Objectives of the project :** Support traders in trade booking and ensure accurate risk representation. Additionally, the role aimed to automate manual tasks and develop scripts to identify and address inaccuracies efficiently.

**Major Learning Outcomes :** Gained in-depth knowledge of various exotic derivative products, such as structured notes and exotic options. Developed a strong understanding of the Greeks and their application in risk management. Additionally, acquired insights into trading strategies

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Team is highly supportive and collaborative. The work is fast-paced in nature and keeps you engaged throughout the day. Strong attention to detail and the ability to deliver accurate results under time constraints is must. The company expects individuals to take ownership of their tasks and proactively contribute.

**Academic courses relevant to the project :** DRM, FRAM, SAPM, Probability & Statistics

**PS-II STATION : MORGAN STANLEY FIXED INCOME DIVISION - COUNTERPARTY RISK ROLE ,MUMBAI**

**FACULTY NAME: AMBATIPUDI VAMSIDHAR .**  
**STUDENTNAME:ADITHYADINESH(2020B3A4216H)**

Student Write-up

**PS-II Project Title:** Counterparty Risk team

**Short Summary of work done during PS-II :** Automation of several processes, BAUs related to monitoring risk and sensitivities to various counterparties

**Tool used (Development tools - H/w, S/w) :** Python, VBA, Microsoft Office

**Objectives of the project :** To learn what counterparty risk is and help the team by automating their processes, and eventually picking up on actual BAU work

**Major Learning Outcomes :** I learnt a lot about fixed income securities like bonds, swaps, etc and how initial margin, etc is calculated for these products. I was also able to learn a lot of python as part of my projects.

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** WLB is relaxed and balanced (12-9, sometimes later, sometimes earlier), initially a lot of the projects were focused on automation, after which we gradually began focusing on BAUs and sending out reports, decks etc to stakeholders. Team is only 8-9 people strong in India, with some more people in NY, LN



and Asia offices. You're expected to know/pick up python, VBA and finance, specifically fixed income as this is not a tech role, but a more proper finance oriented role.

**Academic courses relevant to the project :** DRM, FRAM, SAPM

**PS-II STATION :** MORGAN STANLEY RESEARCH DATA STRATS ,MUMBAI

**FACULTY NAME:** AMBATIPUDI VAMSIDHAR .

**STUDENT NAME:** SANKA RAKESH NAGASUDHAKAR PRASAD (2020B5A32252H)

Student Write-up

**PS-II Project Title:** Automation of Finance Research exhibits

**Short Summary of work done during PS-II :** Automate using python

**Tool used (Development tools - H/w, S/w) :** Python, SQL, linux

**Objectives of the project :** Build tools to automate financial services

**Major Learning Outcomes :** Data analytics

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** Very relaxed and balanced and appropriate training provided.

**Academic courses relevant to the project :** Yes

**PS-II STATION :** MOSDORFER INDIA PVT. LTD. ,NASHIK

**FACULTY NAME:** ARUN MAITY .

**STUDENT NAME:** GURUDEEP G (2023H1420142P)

Student Write-up

**PS-II Project Title:** Challenges of supply chain

**Short Summary of work done during PS-II :** Worked on procurement of materials for the company, worked onsite with various vendors and finding areas of improvement and also filling work and purchase orders in the ERP SAP system.

**Tool used (Development tools - H/w, S/w) :** SAP ERP, excel

**Objectives of the project :** Finding solutions in supply chain

**Major Learning Outcomes :** ERP SAP, communication, Procurement, Vendor management

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Work environment was very welcoming and free. We had the freedom to work on the areas of interest. The colleagues in the company were very helpful and understanding.

**Academic courses relevant to the project :** Supply chain management

**PS-II STATION : MOSDORFER INDIA PVT. LTD. ,NASHIK**

**FACULTY NAME: ARUN MAITY .**

**STUDENT NAME: SHUBHANKAR TIWARI (2023H1420216P)**

Student Write-up

**PS-II Project Title:** Challenges of Supply chain in Metal industries

**Short Summary of work done during PS-II :** Vendor Visits, Working on ERP for WOs and POs, vendor management, supplier research and shortlisting, supplier comparison etc

**Tool used (Development tools - H/w, S/w) :** ERP

**Objectives of the project :** To get to know how things are done in a company

**Major Learning Outcomes :** Learned how the company works and how tasks are being carried out.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Very friendly and helping environment of the company, people here are knowledgeable about the work they are appointed to do.

**Academic courses relevant to the project :** SCM

**PS-II STATION : MOUNTTECH INDIA VENTURES PVT LTD ,DELHI**

**FACULTY NAME: PARAG RASTOGI**

**STUDENT NAME: YASHOVARDHAN NAIK . (2021AAPS0621P)**

Student Write-up

**PS-II Project Title:** Strategic Insights and Operational Excellence in Deeptech

**Short Summary of work done during PS-II :** Worked on sourcing, evaluating, and conducting due diligence on deep-tech startups at MGF-Kavachh, while streamlining deal workflows through the PEFO platform to support strategic investments aligned with Atmanirbhar Bharat

**Tool used (Development tools - H/w, S/w) :** S/w - Microsoft Excel, Powerpoint, Word, Tracxn database, PE Front Office, Adobe Acrobat

**Objectives of the project :** To contribute to the end-to-end venture investment process at Mounttech India Ventures (MGF-Kavachh) by supporting deal sourcing, evaluation, and due diligence of deep-tech startups, while improving operational efficiency through tools like the PEFO platform – all aligned with India's Atmanirbhar Bharat mission.

**Major Learning Outcomes :** During my PS-2 allotment at Mounttech India Ventures (MGF- Kavachh), I engaged with several high-impact learning platforms that shaped my understanding of venture capital operations in India's deep-tech ecosystem. The Private Equity Front Office (PEFO) sys

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Collaborative and fast-paced VC environment with cross-functional teams, structured workflows, and regular interactions with founders, mentors, and domain experts focused on deep-tech and strategic investments. It is a small office in JW Marriott with 5-7 full-time members acting as mentors. Everyone is approachable and helpful.

**Academic courses relevant to the project :** Finance Courses- ECON F355: Business Analysis and Valuation, FIN F414: Financial Risk Analytics and Management, ECON F356: Strategic Financial Management,

**PS-II STATION : MSCI SERVICES PVT. LTD. - NPD ,MUMBAI**  
**FACULTY NAME: KRISHNAMURTHY BINDUMADHAVAN .**  
**STUDENT NAME: YASH PUROHIT . (2020B3A40946P)**

Student Write-up

**PS-II Project Title:** Quantitative Equity Research - Index Research New Product Development (NPD)

**Short Summary of work done during PS-II :** Major work include researching and implementing different index methodologies, with a focus on creating and testing various types of indexes through simulations on historical data. Identifying and troubleshooting aspects in simulation results. Managing multiple small projects or client requests on a daily basis. Working on various data science initiatives that require proficiency in Python or other programming languages. During my six-month internship at MSCI Inc., I contributed to enhancing thematic, factor and ESG index methodologies and automating index rebalancing processes. I performed multiple custom index simulations for various clients from APAC region. I worked on modularizing assembly code for thematic indexes, making the process more scalable and efficient while reducing manual intervention and operational errors. Additionally, I developed trigger-based workflows to automate data validation and report generation during semi-annual rebalancing cycles, significantly streamlining operations.

**Tool used (Development tools - H/w, S/w) :** MSCI proprietary software and tools, Python, SQL, Azure AI, Microsoft Office Suite

**Objectives of the project :** Quantitative Equity Research - Advancing Thematic, Factor and ESG Index Methodologies, Enhancing Index Rebalancing and Methodology Frameworks for New Product Development

**Major Learning Outcomes :** Improved understanding of various index methodologies and the index lifecycle.

Gained hands-on experience in code modularization and automation. Client custom index simulations, and proposals/presentations.

Enhanced opportunity-solving, teamwork, and project

**Details of Papers/patents :** No papers or patents were produced during this internship.

**Brief Description of working environment, expectations from the company :** The working environment at MSCI Inc. was collaborative, intellectually stimulating, and highly supportive. Team members and mentors were always approachable, fostering open communication and knowledge sharing. While there are days when work hours may extend into the late evening due to the workload during index rebalancing, the overall atmosphere remains friendly and motivating.

The company set clear expectations regarding project timelines and deliverables, providing structured guidance and access to resources to meet these objectives. I was entrusted with significant responsibilities, encouraging me to take ownership of my work. Expectations are reasonable, and there is no intense pressure to perform. Managers prioritize your learning experience during the internship and are pleased to see you make contributions. With time, they progressively increase the responsibilities you handle in the team as you get more experienced in your work and with how Index Research teams work at MSCI.

**Academic courses relevant to the project :** Fundamentals of Finance and Accounting, Security Analysis and Portfolio Management, Business and Asset Valuation, Financial Management, Object Oriented Programming, Derivatives and Risk Management.

**PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU**

**FACULTY NAME: AKANKSHA BHARADWAJ .**

**STUDENT NAME: TAARAK SHUKLA (2020B2AA2530H)**

Student Write-up

**PS-II Project Title:** Improving myntra Adengine service

**Short Summary of work done during PS-II :** - improved the services health and building new features

**Tool used (Development tools - H/w, S/w) :** java, mongoldb, mysql, new relic, grafana, cabana

**Objectives of the project :** Improving myntra Adengine service

**Major Learning Outcomes :** Learned how micro services work, how a corporate setup works

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Good working environment, people are helpful

**Academic courses relevant to the project :** Operating system, oops, DSA

PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU

FACULTY NAME: AKANKSHA BHARADWAJ .

STUDENT NAME: DEEPALI RATHI (2020B4A82365H)

Student Write-up

**PS-II Project Title:** Unified Rule Engine

**Short Summary of work done during PS-II :** Delivered a complete rule management dashboard with modular functionality. Drastically reduced the time and technical knowledge needed to create and export rules. Improved accuracy by reducing manual DRL writing errors. Made the system accessible to business users, enabling cross-functional usage. The architecture is scalable, allowing future extensions like: Role-based access control & Drag-and-drop rule builders

**Tool used (Development tools - H/w, S/w) :** IntelliJ Idea, Java, React, Drool

**Objectives of the project :** A centralized platform for managing and executing business rules. Decouples business logic from application code. Enables dynamic rule updates and configuration. Improves agility, maintainability, and scalability. Supports CSV files. Enable easy onboarding of use case as well application(internal team services)

**Major Learning Outcomes :** Drool, Rule library, Java, React

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** During my internship at Myntra's Bangalore office, I experienced a dynamic and fast-paced working environment that fostered innovation, collaboration, and continuous learning. The workspace encouraged open communication, with a flat hierarchy that made it easy to interact with mentors, team leads, and peers. Regular stand-up meetings, feedback sessions, and tech discussions helped maintain transparency and ensured alignment across tasks.

**Academic courses relevant to the project :** Java, JavaScript, Data Structures & Algorithms, OOPS

PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU

FACULTY NAME: AKANKSHA BHARADWAJ .

STUDENT NAME: ANSH BHARDWAJ (2020B5A31847G)

Student Write-up

**PS-II Project Title:** Migration of Dexter Portal

**Short Summary of work done during PS-II : N/A**

**Tool used (Development tools - H/w, S/w) :** VS Code/Cursor/Jenkins

**Objectives of the project :** Rebuild internal portal to comply with modern programming standards and architecture

**Major Learning Outcomes :** React/Node/Express/Git

**Details of Papers/patents :** n/a

**Brief Description of working environment, expectations from the company :** N/A

**Academic courses relevant to the project :** OOPS, DSA

**PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU**

**FACULTY NAME: AKANKSHA BHARADWAJ .**

**STUDENT NAME: SHASHANK GAUTAM (2020B5A32378H)**

Student Write-up

**PS-II Project Title:** Modification of Yoda tool to streamline the search mail on-call aspect between the L1 (Non-Tech team) & the on-call Engineer

**Short Summary of work done during PS-II :** The Project aims to develop new features and extend the existing ones to streamline the search on-call aspects which are transferred from the Non- tech team to the on-call engineer. The tool can help to reduce some of the common occurring on-call aspects by filtering out the aspects and suggest previously solved methods. Also some false aspects (close to 1/3rd of all the aspects) can be solved at Non-tech end only. 4 new modules which are Keyword quality check, Related Query, Query-Level suggestion and Style-Level suggestion and a resolution module Solr-Query transition was developed as part of project.

**Tool used (Development tools - H/w, S/w) :** Backend - Spring Environment, Frontend - React, Node, Css & for ML - Python, Azure notebooks, Blob Storage

**Objectives of the project :** To reduce the mail on-call aspects resolving time from 20-30 min to less than 5 min using GenAI reducing the engineer bandwidth in these tasks from 18% to less than 10% and create a logs of all the aspects to categories them and create a RAG out of them

**Major Learning Outcomes :** FullStack Development, Using GenAI agents to resolve aspects, Working with the team and in Hierarchy, also visualization and analysis tools like Azure and Grafana and newrelic.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** I was part of the Search & Relevance team in Myntra, the team was big with 3 different pods and using. The team members were friendly and reachable with all the doubts and project information's. Since the team consist of many young members and of the same age, the thought process and brainstorming was easy. The project allotted consist of a crisp of the work done in the team, the project started with giving highlight of the work done using different datasets and a series of tasks based on that, once a general understanding of the work was gathered, the major project started, the expectation was to complete the project in the given time and to maximize the learning with new additions to the project with self-suggestions and modifications to get more understanding of the project. The project was split in monthly and weekly tasks with meets and catchups and reviews along with final presentations.

**Academic courses relevant to the project :** CS F213, OOPS

**PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU**

**FACULTY NAME:** AKANKSHA BHARADWAJ .

**STUDENT NAME:** DHEERAJ BAIJU . (2021A3PS2232P)

Student Write-up

**PS-II Project Title:** Address service revamp

**Short Summary of work done during PS-II :** Revamped servixe from java 8 and spring to java 21 and springboot. Improved latency and memory consumption

**Tool used (Development tools - H/w, S/w) :** Java, spring, springboot

**Objectives of the project :** Revamp address service from spring to springboot and java upgrade

**Major Learning Outcomes :** Learnt springboot, spring, java

**Details of Papers/patents :** No paper

**Brief Description of working environment, expectations from the company :** Good and helpful environment.



**Academic courses relevant to the project :** Oops, dsa

**PS-II STATION :** MYNTRA DESIGNS PVT. LTD ,BENGALURU

**FACULTY NAME:** AKANKSHA BHARADWAJ .

**STUDENT NAME:** TIMOTHY ZACHARIAH BINESH (2021A3PS2978H)

Student Write-up

**PS-II Project Title:** Full Stack Development At Myntra

**Short Summary of work done during PS-II :** During my PS-II internship at Myntra, I worked as a Full Stack Developer, contributing to the development and enhancement of internal tools and customer-facing features on the platform. My work involved developing responsive user interfaces using ReactJS, along with implementing back-end services using Node.js and Java Spring Boot. I actively participated in the integration of RESTful APIs, ensuring seamless data exchange between the front-end and back-end systems. I was involved in writing efficient, reusable, and maintainable code, adhering to the company's development standards. I also worked on bug fixing, performance optimization, and implemented unit and integration tests to ensure code quality. On the database side, I interacted with MongoDB and MySQL for data storage and retrieval tasks, gaining hands-on experience in data modeling and query optimization. As part of the agile development process, I collaborated with product managers, designers, and QA engineers in daily stand-ups, sprint planning, and code reviews. I also gained exposure to CI/CD pipelines and version control using Git, which helped in understanding real- world deployment workflows. Overall, the internship gave me a holistic understanding of how scalable and efficient applications are developed and maintained in a high-growth e-commerce environment like Myntra.

**Tool used (Development tools - H/w, S/w) :** ReactJS – For building dynamic and responsive user interfaces  
JavaScript / TypeScript – Core scripting languages for the front end  
HTML5, CSS3 – Markup and styling  
Redux – State management (if applicable)  
Back-End: Node.js / Express.js – Server-side

**Objectives of the project :** Understand the Software Development Lifecycle (SDLC) followed at Myntra, including Agile practices and CI/CD pipelines. Gain hands-on experience in full stack development, including front-end (ReactJS, HTML/CSS, JavaScript) and back-end (Node.js/Java/Spring Boot) technologies used at Myntra. Contribute to the development and enhancement of user-facing features on the Myntra web or mobile platform. Integrate and consume RESTful APIs to ensure seamless communication between client and server. Implement and optimize database interactions, using tools such as MySQL, PostgreSQL, or MongoDB as per the project requirements. Ensure application performance and responsiveness through efficient

coding, testing, and debugging practices. Collaborate with cross-functional teams, including designers, product managers, and QA teams to deliver high-quality software. Learn about industry best practices in code versioning, using tools like Git, and participate in code reviews. Understand the scalability and reliability considerations for large-scale e-commerce platforms like Myntra. Document all development activities, learnings, and project contributions effectively.

**Major Learning Outcomes : Practical Experience in Full Stack Development**

Gained hands-on exposure to building and maintaining scalable web applications using both front-end and back-end technologies.

Proficiency in Modern Front-End Technologies Developed  
interactive user interface

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :**

The working environment at Myntra was dynamic, collaborative, and growth-oriented. As a fast-paced e-commerce company, Myntra fosters a strong tech-driven culture that encourages innovation, continuous learning, and ownership. I was part of a cross-functional agile team comprising developers, product managers, designers, and QA engineers. Regular stand-up meetings, sprint planning sessions, and code reviews were integral parts of the development cycle, which provided a structured yet flexible workflow. I had access to modern development tools and a well-defined onboarding process, which helped me quickly adapt to the company's tech stack and workflow. Mentorship from senior engineers and regular feedback helped me improve both technically and professionally. The culture emphasized clean code practices, testing, and documentation, which were vital in maintaining code quality and collaboration.

Myntra expected a strong commitment to learning, timely task delivery, and proactive communication. As an intern, I was expected to contribute meaningfully to ongoing projects, participate in team discussions, and adapt to the company's standards and timelines. In return, the company provided a supportive ecosystem for hands-on learning, real-time opportunity-solving, and exposure to large-scale system development.

Overall, Myntra offered a well-balanced environment that combined technical rigor with a collaborative and encouraging culture, making it a highly rewarding experience.

**Academic courses relevant to the project : OOPS , DBMS**

**PS-II STATION : MYNTRA DESIGNS PVT. LTD ,BENGALURU**

**FACULTY NAME: AKANKSHA BHARADWAJ .**

**STUDENT NAME: CHINMAY SHARMA (2021AAPS0734H)**

## **PS-II Project Title:** Revamping of Myntra's Loyalty Service

**Short Summary of work done during PS-II :** During PS-II, I worked on revamping Myntra's Loyalty Wallet Service. I was responsible for setting up the project architecture using Spring Boot 3.4.3 and Java 21, enabling health checks, Swagger documentation, and robust logging. I implemented key features such as fetching user account balance, MyMyntraAccountInfo, credit/debit transactions, refund/void functionality, and Airbus-based bulk operations. Caching was handled via Redis (Lettuce) to improve performance, and full observability was enabled through Prometheus and New Relic. Exception handling was standardized across controllers using ControllerAdvice. I also conducted load testing, monitored production cut-over, integrated CI/CD processes, and ensured API-level security using AuthNZ. This project provided deep exposure to modern backend development and large-scale production deployment in a real-world e-commerce environment.

**Tool used (Development tools - H/w, S/w) :** Software: Spring Boot, Java 21, Gradle, Redis (Lettuce), Prometheus, New Relic, Swagger, Git, Docker, Jenkins, IntelliJ IDEA, Postman  
Demandware: Standard Linux development VM (provided by Myntra)  
Others: Chitragupta (for logs), SonarQube, Jacoco (code co

**Objectives of the project :** To revamp Myntra's legacy Loyalty Points Service into a modern, scalable, and maintainable microservice by upgrading the technology stack, improving system architecture, and implementing production-ready features like authentication, caching, and observability.

**Major Learning Outcomes :** Gained hands-on experience in designing and developing microservices using Spring Boot 3.4.3 and Java 21.  
Understood and implemented best practices in caching with Redis Lettuce. Integrated observability tools like New Relic and Prometheus for monitoring.

**Details of Papers/patents :** None. No papers or patents have been produced as part of this PS-II.

**Brief Description of working environment, expectations from the company :** Myntra offered a collaborative and fast-paced engineering environment. I was part of the Payments Team, which followed agile methodologies with frequent sprint planning, code reviews, and demo sessions. Expectations were high in terms of code quality, system performance, and delivery timelines. Regular sync-ups with mentors and product owners ensured alignment with business goals. I had access to a well-documented onboarding process, cloud-native development infrastructure, and proactive support from senior developers and DevOps engineers.

**Academic courses relevant to the project :** OS, OOPS, DBMS, FDSA. Cryptography

**PS-II STATION : NATIONAL CENTRE FOR BIOLOGICAL SCIENCES (NCBS) ,BENGALURU**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: NOAH PINHEIRO (2020B1A41916G)**

Student Write-up

**PS-II Project Title:** Confinement-Induced Filamentation in 3D Bacterial Cultures and Fabrication of Magnetic Cell Stretcher for Mechanobiological Studies

**Short Summary of work done during PS-II :** During my PS-II at NCBS, I investigated how physical confinement and nutrient conditions in 3D gel matrices influence bacterial filamentation, a survival strategy marked by elongated, non-septated cells. Using Carbopol-based hydrogels with tunable stiffness (10–800 Pa) and various nutrient media, I cultured and analyzed E. coli strains to map filamentation responses. Results showed that higher stiffness and nutrient supplementation promoted filamentation, while population density further amplified this effect. Additionally, I fabricated a magnetic cell stretcher capable of applying controlled mechanical forces to cells embedded in microgels with iron particles. COMSOL simulations guided the design, and Arduino-controlled demandingware enabled precise force application. Prototype testing confirmed the stretcher's ability to deform microgels, paving the way for future mechanobiological experiments. This project provided a deeper understanding of bacterial adaptation mechanisms and introduced a novel tool for studying cell mechanotransduction.

**Tool used (Development tools - H/w, S/w) :** Demandingware: Arduino Uno, L298 motor controller, 3D-printed PLA components, DC motors, neodymium magnets Software: COMSOL Multiphysics, Arduino CLI, ImageJ, Confocal microscopy

**Objectives of the project :** To analyze confinement-induced filamentation in 3D bacterial cultures under varying mechanical and nutritional conditions. To fabricate and test a magnetic cell stretcher for applying controlled mechanical forces to cells for mechanobiological studies.

**Major Learning Outcomes :** Gained expertise in designing and conducting experiments with 3D hydrogels and bacterial cultures.

Learned fabrication and testing of a custom magnetic cell stretcher and its application in mechanobiology.

Developed skills in rheology, microscopy, and A

**Details of Papers/patents :** No papers or patents were filed during the course of this project

**Brief Description of working environment, expectations from the company :** The National Centre for Biological Sciences provided a collaborative and interdisciplinary research environment, blending expertise from biology, physics, and engineering. The ESoftBio Lab promoted open communication, hands-on experimentation, and innovation in biophysics. I was

expected to independently design and execute experiments, troubleshoot protocols, and contribute to lab meetings. The lab fostered critical thinking and encouraged initiative, with regular guidance from mentors and opportunities for peer learning. My expectations included gaining practical experience in experimental biophysics, exposure to advanced research tools, and developing skills in both wet-lab and demandingware prototyping. The supportive culture and access to state-of-the-art facilities enabled me to achieve these goals and contribute meaningfully to ongoing research.

**Academic courses relevant to the project :** Instrumental methods of Analysis, Microfluidics, Advanced Manufacturing processes and Computer Aided design.

**PS-II STATION : NATIONAL CENTRE FOR BIOLOGICAL SCIENCES (NCBS) ,BENGALURU**

**FACULTY NAME:** BHARATHI R .

**STUDENT NAME:** PRANJALI KAUR SIDDHU (2023H1290004P)

Student Write-up

**PS-II Project Title:** STUDYING DROSOPHILA CEP290 LOCALIZATION IN S2 CELLS

**Short Summary of work done during PS-II :** This work involved studying the localization of \*Drosophila\* CEP290 fragments in non-ciliated S2 cells through the cloning, transfection, and imaging of GFP-tagged constructs. Plasmids were validated via Sanger sequencing, transfection efficiency was optimized, and co-localization with cytoskeletal markers was analyzed using confocal microscopy. Additionally, fragments of human CEP290 cDNA were amplified for future subcloning. This project provided hands-on experience in molecular cloning, confocal imaging, and data analysis, while also enhancing troubleshooting and experimental design skills.

**Tool used (Development tools - H/w, S/w) : -**

**Objectives of the project :** To examine the subcellular localization and domain-specific functions of various Drosophila CEP290 fragments in Schneider 2 (S2) cells—an established non-ciliated model—to explore the protein's non-ciliary roles. Additionally, to amplify C-terminal human CEP290 cDNA from RPE-1 cells for future functional and localization studies across species.

**Major Learning Outcomes :** Through this project, I gained hands-on experience in essential molecular and cell biology techniques such as bacterial transformation, Sanger sequencing, transfection and PCR. I also developed skills in image analysis, troubleshooting transfection protocol

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The research environment at NCBS, Bengaluru, is intellectually rich and refreshingly liberal, encouraging independent thinking alongside strong collaborative practices. Weekly lab meetings focus on troubleshooting and idea exchange, while regular work update sessions ensure organized progress. The institute hosts weekly lectures by global PhD and postdoc researchers, offering valuable insights into cutting-edge science. Well-equipped with advanced facilities and guided by clear, supportive rules, NCBS also provides a vibrant campus life with good food, a green environment, and a culture that values both scientific rigor and community well-being.

**Academic courses relevant to the project :** Animal cell technology, Experimental Techniques, General engineering techniques, SAT, RP, Cancer Biology

**PS-II STATION : NATIONAL CENTRE FOR BIOLOGICAL SCIENCES (NCBS) ,BENGALURU**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: SHAMBHAVI SHUCHI (2023H1290009G)**

Student Write-up

**PS-II Project Title:** Investigating Phage Infections in Bacteria: Mechanisms of Spread and Motility

**Short Summary of work done during PS-II :** The spatial expansion of microbial populations plays a crucial role in ecological and evolutionary dynamics as it shapes community structure and promotes coexistence. Microbial range expansion creates unique spatial patterns, selects for traits that enable efficient growth, and can lead to increased genetic diversity within expanding populations. One driver of spatial patterning in bacterial colonies is the interaction between bacteria and predatory bacteriophages. Understanding the interplay between bacterial growth, cellular level mechanical forces, and phage infection dynamics is essential for predicting population behavior and infection outcomes. This helps us in understanding microbial community dynamics, develop effective phage therapies and advance our knowledge of bacterial defense mechanisms. In this study, we investigate the spatiotemporal spread of temperate phage infections in expanding *E. coli* colonies. We use different complementary experimental approaches to analyze how bacterial colony expansion influences phage propagation. Our findings suggest that mechanical forces generated during bacterial growth affect infection dynamics, potentially creating spatial heterogeneity in phage distribution which can lead to reduced predation, increased coexistence, or altered phage-plaque shapes. We identify distinct phases of infection spread and highlight how bacterial cell concentration and spatial constraints contribute to variations in infection progression. This study contributes to a broader understanding of host-virus interactions in spatially structured populations, with implications for bacterial resistance evolution and the development of effective phage therapy approaches.

**Tool used (Development tools - H/w, S/w) :** Fiji, Python, Matlab

**Objectives of the project :** 1. Investigate Phage Infection Dynamics in Expanding Bacterial Colonies • Analyze how bacteriophages spread within a growing E. coli colony. • Determine the factors influencing the infection rate and its spatial distribution. 2. Understand the Role of Mechanical Forces in Infection Spread • Examine how bacterial colony expansion generates mechanical forces i.e. pushing • Assess how these forces influence phage propagation and bacterial resistance. 3. Characterize Spatio-Temporal Patterns of Infection • Identify different phases of infection during colony growth. • Explore how colony density and structure impact infection spread. 4. Explore Potential Implications for Bacterial Resistance and Phage Therapy • Investigate how colony growth dynamics contribute to bacterial survival against phages. • Assess whether findings could inform strategies for using phages in antimicrobial treatments.

**Major Learning Outcomes :** This study provides a nuanced view of how bacterial growth, phage dynamics, and mechanical forces combine to create rich and varied infection landscapes. These insights contribute to both the theoretical understanding of microbial ecology.

**Details of Papers/patents :** Publication underway

**Brief Description of working environment, expectations from the company :** Welcoming, collaborative and intellectually stimulating environment. High-end facilities available here.

**Academic courses relevant to the project :** Microbiology, Experimental techniques, Genetic Engineering techniques etc

**PS-II STATION : NATIONAL CENTRE FOR BIOLOGICAL SCIENCES (NCBS) ,BENGALURU**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: VIMARISHI KOUL (2023H1290010P)**

Student Write-up

**PS-II Project Title:** GRAYU: Analysing chemical processes, phytochemicals, and therapeutic correlations of ayurvedic formulations for a comprehensive ayurveda database.

**Short Summary of work done during PS-II :** The project involved the development of a structured and scientifically validated database of Ayurvedic formulations, their medicinal plant components, and associated phytochemicals. The aim was to bridge classical Ayurvedic knowledge with modern scientific analysis to enhance the understanding and application of traditional formulations. The project focused on a detailed analysis of selected Ayurvedic formulations such as Yashtimadhuka Taila, Kshirabala Taila etc. Each formulation was broken down to study its plant-based components and their associated phytochemicals using data from an in-house curated database. Pharmacological activities of the compounds were mapped through literature review to assess therapeutic relevance. To identify functionally important compounds, a specificity-based filtering approach was applied to shortlist phytochemicals found.

exclusively or in a limited number of plants. For those lacking direct evidence of activity, a structural similarity analysis was conducted, allowing us to infer potential functions based on structural resemblance. Data cleanup, integration, and validation were carried out using government-regulated sources such as the Ayurvedic Pharmacopoeia of India (API) and the Ayurvedic Formulary of India (AFI), through a combination of manual curation and AI-assisted tools to ensure accuracy and standardization. This work contributes to the creation of a comprehensive, searchable, and evidence-based Ayurvedic formulation database that can support future research, standardization, and therapeutic innovation.

**Tool used (Development tools - H/w, S/w) :** Cheminformatics tools: ChemMLne, PubChem. Databases: IMMPAT, CMAUP, HERB. Data Handling & Processing: Microsoft Excel, Word, Slides. Coding Language: Python

**Objectives of the project :** To curate and standardize data from classical Ayurvedic references, including the Ayurvedic Pharmacopoeia of India (API) and the Ayurvedic Formulary of India (AFI). To analyze selected Ayurvedic formulations (e.g., Yashtimadhuka Taila, Kshirabala Taila, Lavangadi Vati) and correlate their components with therapeutic indications. To identify and evaluate phytochemicals from each plant, highlighting those that are plant-specific or occur in limited species ( $\leq 5$  plants). To validate the pharmacological relevance of key phytochemicals through literature review and activity mapping. To infer the role of less-studied compounds using structural similarity analysis (ChemMine tools, Tanimoto coefficient) with known bioactives. To reorganize and digitize fragmented Ayurvedic data into a searchable, structured format (CSV) suitable for research and standardization efforts.

**Major Learning Outcomes :** Deepened understanding of Ayurvedic formulations: how traditional knowledge is structured, interpreted, and validated. Phytochemical profiling: Learned to identify, evaluate, and correlate active compounds to therapeutic functions.

**Details of Papers/patents : Nil**

**Brief Description of working environment, expectations from the company :** The working environment was collaborative, research-focused, and intellectually stimulating, providing exposure to interdisciplinary approaches at the intersection of traditional medicine and modern science. Regular discussions with mentors and team members encouraged critical thinking, opportunity-solving, and attention to detail. The expectations from the company included independent ownership of assigned tasks, timely progress on data-related goals, and proactive communication of challenges and findings. Emphasis was placed on scientific accuracy, structured documentation, and meaningful contribution to long-term research objectives. The environment supported learning, while also demanding accountability, making it a valuable and enriching experience for professional and academic development.

**Academic courses relevant to the project :** Biophysics, Bioinformatics, Computational Biology



**PS-II STATION : NAVATA ROAD TRANSPORT ,HYDERABAD**

**FACULTY NAME: BHAMIDIPATI VAISHALI .**

**STUDENT NAME: RISHAV SHARMA (2023H1420140P)**

Student Write-up

**PS-II Project Title:** Sales Lead Generation & Growth Strategy for Navata Road Transport

**Short Summary of work done during PS-II :** During my Practice School II at Navata Road Transport, I worked in the Sales and Operations domain, focusing on lead generation and business development. My key responsibilities included identifying potential clients, conducting cold calls and email campaigns, and following up to convert leads into customers. I successfully onboarded several clients for Partial Truck Load (PTL) and Full Truck Load (FTL) services, contributing to daily load generation. Additionally, I supported the development of growth strategies by analyzing market data, identifying high-potential regions, and understanding customer logistics needs. I collaborated with departments such as Key Accounts, Transshipment, and Booking to gain end-to-end insights into operational workflows. This internship provided practical exposure to logistics sales processes, customer relationship management, and the strategic aspects of market expansion. It helped bridge the gap between academic learning and real-world application, enhancing both my technical and interpersonal skills.

**Tool used (Development tools - H/w, S/w) :** Microsoft Excel, Google Sheets, Email platforms, WhatsApp Business

**Objectives of the project :** To generate quality sales leads and develop growth strategies that enhance client acquisition and expand Navata Road Transport's market presence in FTL and PTL services.

**Major Learning Outcomes :** Gained hands-on experience in B2B lead generation, client communication, and sales strategy execution.

Developed a deeper understanding of logistics operations, customer acquisition, and market expansion techniques.

**Details of Papers/patents :** No papers or patents were published during the PS-II period.

**Brief Description of working environment, expectations from the company :** The working environment at Navata Road Transport is generally neutral. The company offered valuable hands-on learning, and the team was supportive.

**Academic courses relevant to the project :** Supply chain management

**PS-II STATION : NAVATA SUPPLY CHAIN SOLUTIONS PVT LTD ,HYDERABAD**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: APURVA RAKESH (2023H1410104P)**

Student Write-up

**PS-II Project Title: UNDERSTANDING SUPPLY CHAIN CHALLENGES – KEY ACCOUNTS AND OPERATIONS IN A LOGISTICS INDUSTRY**

**Short Summary of work done during PS-II :** As the primary liaison between clients—including Asian Paints, Macmillan, Leads School, Recon Oil, Flyjac Logistics, and Amara Raja Battery—and internal teams, I managed daily operations, resolved business challenges, and nurtured strong client relationships. I streamlined client-specific turnaround times across multiple states by developing and implementing advanced planning and tracking tools in Microsoft Excel, which have since been adopted by a large ground staff workforce to enhance operational efficiency. Additionally, I introduced a Client Escalation Tracker in Google Sheets for the key accounts team, significantly improving the visibility and accountability of client aspects, expediting escalation response times, and strengthening root cause analysis. I also designed a comprehensive monthly service level report, enabling detailed performance analysis across regional hubs and uncovering operational bottlenecks, which led to improved SLA adherence. Beyond operational improvements, I worked closely with clients to identify and pursue new business opportunities— such as expanding product segments, initiating reverse logistics, and securing warehousing solutions—which resulted in stronger client engagement and revenue growth.

**Tool used (Development tools - H/w, S/w) :** Excel, Google Sheets

**Objectives of the project :** GROWTH/UNDERSTANDING BUSINESS OPERATIONS

**Major Learning Outcomes :** Understanding Supply chain Industry with respect to logistics Challenges in handling seasonal loads

Client management and improving business TAT

Adherence and Service Level Improving

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** I learned to approach tasks with greater responsibility and attention to detail. The experience improved my confidence in handling real-world challenges independently.

**Academic courses relevant to the project :** Yes

**PS-II STATION : NAVATA SUPPLY CHAIN SOLUTIONS PVT LTD ,HYDERABAD**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: HARSHAL R SONI (2023H1420141P)**

Student Write-up

**PS-II Project Title:** Efficient Consignment Management: Timely Deliveries & Client Coordination, Client Hunting: Lead Generation & Conversion

**Short Summary of work done during PS-II :** During my internship at Navata Supply Chain Solutions, I worked across the Key Accounts and Sales Departments, gaining hands-on experience in client coordination, logistics operations, and B2B sales. In the Key Accounts Department, I managed daily load forecasting, vehicle deployment planning, and real-time shipment tracking for major clients like Asian Paints, MTR Foods, Swastiks Masala, and Cycle Agarbatti. I ensured Turnaround Time (TAT) compliance by coordinating with operations teams and vendors, directly following up with drivers to avoid delays. A key part of my role was preparing and sharing detailed MIS reports with clients, providing complete shipment visibility—including AWB details, hub timestamps, and POD status. I also handled escalation cases involving short deliveries, misplaced consignments, and POD retrieval, resolving aspects quickly and professionally. In the Sales Department, I focused on lead generation, cold calling, and client onboarding. I maintained a detailed Lead Management Sheet and reached out to potential clients, explaining Navata's logistics offerings—FTL, PTL, 3PL, and warehousing services. My efforts led to the successful onboarding of Hindware, resulting in a booking worth ₹8,00,000. I actively participated in strategy meetings and followed up on leads to increase conversion chances. This internship helped me develop strong skills in logistics tracking, client communication, data reporting, B2B sales, and opportunity-solving, along with a solid understanding of SLA-driven supply chain operations. It was a transformative experience that sharpened both my technical and interpersonal capabilities in real-world logistics management.

**Tool used (Development tools - H/w, S/w) :** Google Sheets & Excel, Transport Management System

**Objectives of the project :** Acquire Practical Experience in Logistics and Transportation, Strengthen Opportunity-Solving Abilities, Enhance Communication and Collaboration Skills

**Major Learning Outcomes :** End-to-end logistics and shipment management,  
Client communication and relationship handling,  
MIS reporting and data analysis,  
B2B sales and lead conversion strategies,  
Opportunity-solving and escalation handling

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** During my internship at Navata Supply Chain Solutions, the overall working environment was mixed. On the positive side, colleagues were approachable and supportive, often helping each other navigate day-to-day responsibilities.

**Academic courses relevant to the project :** Supply Chain Management

**PS-II STATION : NETAPP INDIA PVT LTD ,BENGALURU**

**FACULTY NAME: CHENNUPATI RAKESH PRASANNA .**

**STUDENT NAME: LAVYA DHAWAN . (2020B2A31927P)**

Student Write-up

**PS-II Project Title:** ML-driven cluster-based compression optimization for multi-format data blocks

**Short Summary of work done during PS-II :** During PS-II, I worked on developing an ML-driven solution to optimize compression for multi-format data blocks. The project involved analyzing data block characteristics using Byte Frequency Distribution (BFD) and entropy features and clustering them using ML models such as K-Means. The clustered data blocks were then compressed using tailored algorithms to enhance storage efficiency. Additionally, I implemented unit tests in CxxTestFramework and used mocks to simulate edge cases, ensuring robust testing of the developed solution. Overall, I gained hands-on experience with ML tools, Agile development practices, and storage technologies, which enriched my technical and collaborative skills.

**Tool used (Development tools - H/w, S/w) :** Python, Jupyter Notebook, Cycl Servers, CxxTestFramework, PABot Gen AI, NetApp internal tools

**Objectives of the project :** To design and implement machine learning models that cluster data blocks based on their characteristics, thereby improving compression efficiency and reducing storage overhead for multi-format datasets.

**Major Learning Outcomes :** Mastered ML techniques for clustering and compression optimization.

Gained hands-on experience in feature engineering using BFD and entropy. Improved skills in model validation, testing, and debugging.

Learned to collaborate effectively within Agile teams

**Details of Papers/patents :** None directly filed, but the project outcomes hold potential for future research and patents in storage optimization.

**Brief Description of working environment, expectations from the company :** The working environment at NetApp was collaborative and innovation-driven. The team fostered open communication, offering guidance while encouraging independent opportunity-solving. Agile

methodologies, including sprints and JIRA ticketing, provided structure and clarity in task management. My colleagues and mentors were approachable, creating a supportive space to learn and experiment. My expectations from the company to provide hands-on technical exposure and mentorship were met. I was given ownership of critical tasks, from designing ML models to validating compression results. The environment encouraged continuous learning and self-improvement, with access to tools and resources for skill enhancement.

**Academic courses relevant to the project :** Machine Learning

Data Structures and Algorithms

Database Management Systems

Operating Systems

Probability and Statistics Object

Oriented Programming

**PS-II STATION : NETAPP INDIA PVT. LTD. - CLOUD VOLUME ENGINEERING ,BENGALURU**  
**FACULTY NAME: REDDY RANI VANGIMALLA .**

**STUDENT NAME: ANANSH K SHETTY (2020B3A70659G)**

Student Write-up

**PS-II Project Title:** Cloud Volume Engineering

**Short Summary of work done during PS-II :** My work mainly revolved around helping build a Disaster Recovery SaaS application inside NetApp BlueXP platform. The service was in a fairly nascent stage when I joined so I learnt how enterprise level applications are built from (almost) scratch and mainly how one scales a product to serve larger customers and a wider variety of workloads and configurations.

**Tool used (Development tools - H/w, S/w) :** Go (GoLand) , Angular/HTML/css (VSCode) , K3S

**Objectives of the project :** Helped build a Disaster Recovery SaaS application to protect VMWare workloads

**Major Learning Outcomes :** Learnt about the storage enterprise and protection of enterprise level Virtual Machines using via a Disaster Recovery service. Learnt about various general/NetApp specific storage concepts. Learnt to build scalable and maintainable SaaS application.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** For an intern, there is a smooth onboarding experience. My team was very helpful and allowed me to learn at my own pace. Questions were welcomed (appreciated even). My team was open to discussing the time estimates for feature development/big fixes and tasks were prioritized based on that. My team worked from office 2 days a week. There's no strict check-in or checkout time. Individuals are given the freedom (and responsibility) to work on their task in their own time.

**Academic courses relevant to the project :** Software development, DSA

**PS-II STATION : NETRADYNE,BENGALURU**

**FACULTY NAME: A MICHAEL ALPHONSE**

**STUDENT NAME: ROHAN SANDEEP DONGRE (2021A8PS2570G)**

Student Write-up

**PS-II Project Title:** Validation and testing of product devices

**Short Summary of work done during PS-II :** Worked on testing already released products. Helped in the development of new releases. Contributed in parametric analysis of lenses planned to be used in future product releases.

**Tool used (Development tools - H/w, S/w) :** Teraterm, IMATEST, Thermal chamber, PCB Editor Viewer

**Objectives of the project :** To understand why the testing and validation process is necessary following the research and development that goes into building a product.

**Major Learning Outcomes :** Testing Methods

Process of designing, how research leads to the development of the product. Understanding each stage throughout the development process.

Learning about lens parameters

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Work culture in the company is really great, all fellow employees, teammates make it easier for a new employee to feel comfortable, gel into the team and overall make it better to ease into the company.

**Academic courses relevant to the project :** Microprocessors and interfacing, Power electronics, Electrical sciences, Analog electronics

**PS-II STATION : NETRADYNE,BENGALURU**

**FACULTYNAME: A MICHAEL ALPHONSE**

**STUDENT NAME: AMAN ASHISH SINGH (2021AAPS2857G)**

Student Write-up

**PS-II Project Title: Systems Engineering**

**Short Summary of work done during PS-II :** Gained practical, hands-on experience with Linux in terms of how files are organized and the in-depth details of different commands and their inner workings. Learned to solve and debug opportunities while working with C++ in Linux. Error handling and corner case handling skills were improved. Improved opportunity-solving ability and developed an object-oriented programming mindset when assigned tasks for code refactoring and code cleanup. Understood the workflow of the crucial system services in every product line, like power monitor, APM, and SVC. Learned all the intricacies of ignition sources for the device while working on APM for the latest OTA package release. Learned how to articulate test cases to break your code, which was a skill overlooked before. Coding is the easiest part of developing software, but making it reliable, bug-free, and scalable & future-proof for future architectures, and maintaining it is the challenging part. Learned to communicate with other teams regarding the opportunities we are facing with respect to their team's expertise.

**Tool used (Development tools - H/w, S/w) :** C++, Python, IDMS, Jenkins, Jira, Confluence, Vim editor, VS Code, Docker

**Objectives of the project :** Develop and maintain linux systemd based services of the company's product line

**Major Learning Outcomes :** Learnt how to code for linux embedded systems

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :**  Analytics Team – This team builds the data analytics models for our devices.

 Device Team – Handles demandingware, BSP (Board Support Package), and software. SW includes sub-teams for Bluetooth, multimedia, networking, connectivity, build & integration, system engineering, installer app, etc.

 Cloud Team – Works on DBA, BSG, Salesforce development, Development for IDMS, Driver app development, etc.

 QA & Testing Team – Embedded within all major tech teams, ensuring reliability. IT &

 Infosec Team – Manages cybersecurity and IT service requests.

 HR, Finance & Payroll Team – Supports overall organizational operations.

**Academic courses relevant to the project :** C Programming, Data Structures and Algorithms, Microprocessors and its Interfacing, Operating Systems, Object Oriented Programming, Computer Architecture

**PS-II STATION : NIELSEN GLOBAL MEDIA ,BENGALURU**

**FACULTY NAME: PARAG RASTOGI**

**STUDENT NAME: SHRIPURNA GANGOPADHYAY (2020B1A70603P)**

Student Write-up

**PS-II Project Title:** Automation of data entry for ad-intel

**Short Summary of work done during PS-II :** At Nielsen, I contributed to automating the manual process of logging ad airing times from 24-hour media feeds across countries. The project aimed to replace human annotation of program-to-ad transitions with a deep learning pipeline, targeting sub-10 second accuracy in predicted timestamps compared to manual records. I built a ResNet embedding-based similarity detection module to handle edge cases where traditional hash-based models failed, especially in geography-specific scenarios. This model was critical for the Mexico rollout, where existing systems underperformed. I led the modular refactoring of the codebase for production-readiness and facilitated clean integration into global workflows. From a DevOps perspective, I deployed an Amazon EKS cluster using eksctl for scalable automated testing, created custom cleanup scripts to manage memory for long-running jobs, and configured secure S3 access for team-specific pipelines. During UAT in Poland, I shortlisted high-performing models, stress-tested them to identify region-specific anomalies, and enabled feedback loops for iterative tuning. I also supported pre-go-live compliance including rollback plans, Git commit hygiene, and Jira traceability. This project provided deep exposure to the ML product lifecycle—from POC to UAT to imminent production deployment—balancing technical robustness with real-world constraints like scalability, regional variation, and business-critical uptime. The success metric of <10s deviation was consistently met, and I gained experience in debugging, version control, and cross-functional collaboration across global teams.

**Tool used (Development tools - H/w, S/w) :** AWS (EC2, EKS, Sagemaker, DynamoDB),

**Objectives of the project :** To create a model that segments TV stream into program and ad- breaks to track ad airing to replace manual data entry done by a global team

**Major Learning Outcomes :** Working on mature Deep Learning product in User acceptance Testing (UAT) phase which is ready to be offered as a product by an established 102 year old company. Learning about dev-cycle, product rollout mechanisms, contributing to large codebase in a big



**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Working environment - flexible timings, initially completely remote (1st 3 months), then WFO 3 days a week, as an intern, my seniors repeatedly stressed that I should not work after hours or on the weekend even during time crunch. Received lot of mentoring from multiple people in both dev/devops and Data Science team, people took feedback if I was happy with the work I got

**Academic courses relevant to the project :** OOP, Data Mining, AI, DBMS, Computer Networks

**PS-II STATION : NIELSEN GLOBAL MEDIA ,BENGALURU**

**FACULTY NAME:** PARAG RASTOGI

**STUDENT NAME:** S SAI ROHIT (2020B2A70982H)

Student Write-up

**PS-II Project Title:** Fusion framework

**Short Summary of work done during PS-II :** At Nielsen, I worked on the **\*\*Fusion\*\*** platform, which integrates data from various sources to provide advertisers with deeper audience insights. My primary role involved enhancing backend systems to ensure faster data processing and more accurate reporting. I collaborated with cross-functional teams to identify performance bottlenecks and implemented optimizations in both .NET and React codebases. I also contributed to resolving production-level bugs and worked on adding new features that improved user experience and reporting flexibility. Additionally, I handled support tickets, ensuring minimal downtime and efficient resolution of client-facing aspects. This experience gave me a strong understanding of large-scale data pipelines, API integrations, and the importance of performance tuning in real-time analytics platforms. It also helped me develop my debugging skills and taught me how to prioritize tasks in a fast-paced environment while maintaining code quality and adhering to agile methodologies.

**Tool used (Development tools - H/w, S/w) :** C# react cpp gitlab

**Objectives of the project :** Developing Nielsen product fusion

**Major Learning Outcomes :** Development and debugging

**Details of Papers/patents : Na**

**Brief Description of working environment, expectations from the company :** Very helpful and healthy work environment.

**Academic courses relevant to the project :** Oops dbms dsa hci

**PS-II STATION :** NIELSEN GLOBAL MEDIA ,BENGALURU

**FACULTY NAME:** PARAG RASTOGI

**STUDENT NAME:** SHIVAM AGARWAL (2021A7PS2909G)

Student Write-up

**PS-II Project Title:** Software Engineer - Backend and Frontend Tasks

**Short Summary of work done during PS-II :** Handled multiple tasks during the course of the internship including both backend and frontend software development. The first major task was Database Retirement in which we had to convert SQL stored procedures into Java code, shifting separating the business logic from the database as per modern software development standards. The second task was to build a frontend application in React. The application was a CRUD application for another internal team to access. Third task was to build a centralized notification service which would alert team members of errors and events regarding servers going down or tasks failing. This was a centralized system to through which clients can send notifications using API calls.

**Tool used (Development tools - H/w, S/w) :** IntelliJ, DBeaver, DynamoDB

**Objectives of the project :** To retire the Sybase database and replace it with microservices

**Major Learning Outcomes :** Backend Software Development, Database, Java

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Coworkers are friendly and help you out. A buddy was assigned and manager was also very helpful.

**Academic courses relevant to the project :** Object Oriented Programming, Database Management Systems

**PS-II STATION :** NOMURA - RISK MANAGEMENT - RISK INFRASTRUCTURE,MUMBAI

**FACULTY NAME:** AMBATIPUDI VAMSIDHAR .

**STUDENT NAME:** VEDANT MAKARAND SHETE (2021A7PS0002G)

Student Write-up

**PS-II Project Title:** Automation

**Short Summary of work done during PS-II :** There were a lot of financial reports which my team used to send out to Risk Managers, and that is a very manual and tedious process. Because of my automations, a lot of the mundane tasks were automated by code and a lot of man hours were saved.

**Tool used (Development tools - H/w, S/w) :** Python, SQL, Business Objects

**Objectives of the project :** Using SQL and Python to automate workflows.

**Major Learning Outcomes :** I learned script writing and automating workflows in the Market Risk Infrastructure team.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The work culture is very good. All team members are very supportive.

**Academic courses relevant to the project :** Databases and Management Systems(DBMS), Data Structures and Algorithms(DSA)

**PS-II STATION : NOMURA- RISK MANAGEMENT - CREDIT RISK MANAGEMENT ,MUMBAI  
FACULTY NAME: AMBATIPUDI VAMSIDHAR .**

**STUDENT NAME: EESHAN YOGESH DESHPANDE (2021A8PS1567G)**

Student Write-up

**PS-II Project Title:** Process Streamlining through Automation

**Short Summary of work done during PS-II :** My task was to write Credit Reviews, which is the primary work of the team. In addition to that, I was also involved in Process Automation and ad- hoc projects.

**Tool used (Development tools - H/w, S/w) :** VSCode, Python, MS Excel

**Objectives of the project :** Automate certain redundant tasks of the team

**Major Learning Outcomes** : I learned about the working of the team and organization, types of trades undertaken and various asset classes that can be invested in. I also learned what things are considered by institutions while investing.

**Details of Papers/patents** : None

**Brief Description of working environment, expectations from the company** : The environment of the company is productive and conducive for learning. The team and seniors are patient and helpful. Learning is encouraged.

**Academic courses relevant to the project** : Financial Risk Management

**PS-II STATION : NOMURA- RISK MANAGEMENT - RISK METHODOLOGY GROUP ,MUMBAI**  
**FACULTY NAME: AMBATIPUDI VAMSIDHAR .**

**STUDENT NAME: RISWADKAR PRALHAD ASHWINIKUMAR (2020B3AA1274H)**

Student Write-up

**PS-II Project Title:** Insurance Event Risk : Risk Model Creation

**Short Summary of work done during PS-II** : Worked on creating Insurance Event Risk Models for different types of reinsurance trades, Worked on creating a monthly month end event risk report(BAU)(Business As Usual). Also worked on creating a python package and an EUC for Comprehensive Risk Measure (CRM) parameter calibration, along with some python and vba integrated what if tools.

**Tool used (Development tools - H/w, S/w)** : Python, Excel, VBA

**Objectives of the project** : To accurately measure Insurance Event Risk by shocking markets with prescribed mortality and lapse shocks and revaluing the trades.

**Major Learning Outcomes** : Theoretical and practical understanding of how Insurance Event Risk is modelled and of Shocking Markets and revaluation of trades.

**Details of Papers/patents** : None

**Brief Description of working environment, expectations from the company** : Good working environment, helpful seniors, offers independence and trust, great learning experience.

**Academic courses relevant to the project** : FRAM, Econometrics, Applied Econometrics, Probability and Statistics

**PS-II STATION : NOVARTIS- ANALYTICAL RESEARCH & DEVELOPMENT, SHAMEERPET, HYDERABAD**

**FACULTY NAME: BHARATHI R.**

**STUDENT NAME: VAISHNAVI SANJAY NIKAM (2023H1460199H)**

Student Write-up

**PS-II Project Title:** Evaluation of mobile phase impact on the peak

**Short Summary of work done during PS-II :** Early eluters exit column shortly after the sample is injected. This can be opportunity tic as it indicates that the compound are not interacting with stationary phase as expected, which can compromise separation. Hence use of different mobile phase can improve the separation which is tested in this project.

**Tool used (Development tools - H/w, S/w) :** Chromeleon

**Objectives of the project :** To assess the early eluters, the peaks which comes early in chromatograms.

**Major Learning Outcomes :** Learnt in details about method development in industry. Had hands on experience on HPLC and sample preparation

**Details of Papers/patents : No**

**Brief Description of working environment, expectations from the company :** Very good environment, company doesn't have much expectations but do expects that we should know the basics of the domain which we are entering into.

**Academic courses relevant to the project :** Quality by design

**PS-II STATION : NOVARTIS- ANALYTICAL RESEARCH & DEVELOPMENT, SHAMEERPET, HYDERABAD.**

**FACULTY NAME: BHARATHI R.**

**STUDENT NAME: GORE VEDANGI VILAS (2023H1460220P)**

Student Write-up

**PS-II Project Title:** Method development for calibration of LC by using caffeine standard.

**Short Summary of work done during PS-II :** This project enabled me to familiarize myself with various analytical instruments, including LC, GC, IR, XRD, TGA, DSC, and Karl Fischer titrator. I learned instrument qualification, requalification, and method development, including sample and mobile phase preparation. Key aspects include: - Instrument qualification and requalification protocols - Method development and validation - Sample preparation and mobile phase optimization - Operation and maintenance of analytical instruments, including specialized instruments like Micro-Flow Imaging (MFI).

**Tool used (Development tools - H/w, S/w) :** DigiVal, Chromeleon, GLIMS

**Objectives of the project :** To develop method for calibration of LC for reliable analysis.

**Major Learning Outcomes :** Calibration of analytical instruments.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Open, friendly environment. Very good culture.

**Academic courses relevant to the project :** Modern Pharmaceutical analytical techniques

**PS-II STATION : NOVARTIS- DATA SCIENCE & ANALYTICS RAIDURG, HYDERABAD**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: ANIRUDH BAGALKOTKER (2021A7PS2682H)**

Student Write-up

**PS-II Project Title:** Development of Interactive Clinical & Operational Data Review Dashboard

**Short Summary of work done during PS-II :** Build a proof-of-concept dashboard for all global reports called CosmosR Dashboard. Developed the Dashboard and various clinical and operational reports under it. Added features like Incremental Data Review to the Dashboard and used libraries like plotly and ggplot2 for interactive visuals.

**Tool used (Development tools - H/w, S/w) :** R, R Shiny, Plotly, ggplot2, tidyverse, Rstudio

**Objectives of the project :** Develop a POC for Clinical & Operational Dashboard for generating Insights and key visuals using R and R Shiny

**Major Learning Outcomes :** In-depth knowledge of R programming, R Shiny for dashboard development, and data visualization libraries like Plotly and ggplot2.

Understood the structure of clinical and operational data using various techniques like Exploratory Data Analysis, Statistic

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The Work Environment was very peaceful. It is in fact a certified Best Place to Work (Jan 2024-2025). There was very little to no work pressure as timelines are decided on discussions with all the associates. The company provides facilities like Transportation, Subsidized meals and perks like upto 12 days WFH per month, team outing, breakfasts and snacks during seminars etc.

The expectations from our department has been to be present in the office despite the WHF option to make our PS more interactive.

**Academic courses relevant to the project :** DSA (CS F211), DBMS (CS F212), ML (BITS F464), FoDS (CS F320)

**PS-II STATION : NOVARTIS- DATA SCIENCE & ANALYTICS RAIDURG, HYDERABAD ,HYDERABAD  
FACULTY NAME: BHARATHI R .**

**STUDENT NAME: SUDHANSHU PATIL (2021AAPS0663H)**

Student Write-up

**PS-II Project Title:** CosmosR - Developing interactive clinical dashboards in R

**Short Summary of work done during PS-II :** Developer Clinical reports using URS (User requirements Specification) document in R. Created aap in RShiny using Shiny dashboard to help visualise the info and data according to the logic mentioned in URS. Also worked on training custom chatbots using the Novartis internal ChatGPT for clinical programming and reporting in R (R-GPT). Also worked on a test case on internal Gen AI platform with fine tuning ML models for particular requirement.

**Tool used (Development tools - H/w, S/w) : RStudio**

**Objectives of the project :** PoC for replacing traditional sas programming by R

**Major Learning Outcomes :** Clinical reporting and driving crucial decision making process using data driven insights

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The work culture at Novartis is very relaxed and balanced, although I would say it mostly depends on your manager as well. You will be able to feel the best work life balance here at Novartis. Company expectations are that every employee should be aligned with their respective managers, set deadlines and progress towards it with positive mindset. Hybrid working is also available at Novartis.

**Academic courses relevant to the project : Yes**

**PS-II STATION : NOVARTIS- ICSM IMPLEMENTATION SUPPORT RAIDURG, HYDERABAD**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: SHIVANGI SINGH (2023H1470204P)**

Student Write-up

**PS-II Project Title: iCSM Implementation Support**

**Short Summary of work done during PS-II :** The primary work done involved data cleaning, analysis, and visualization. Other support tasks also included designing workflow templates, creating dashboards with relevant KPIs, and unifying data through automation.

**Tool used (Development tools - H/w, S/w) :** Excel, Power BI, Visio

**Objectives of the project :** Supporting the ongoing migration of legacy software to the SAP iCSM system with activities such as data migration, study set-up support, and UAT support.

**Major Learning Outcomes :** I gained hands-on proficiency in data sampling, pivot analysis, and trend analysis using tools like Excel and Power BI. I was also acquainted with Visio and developed skills in visual process documentation. From a process perspective.

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The organization has a supportive working environment with flexibility provided to interns to learn and grow at their own pace while supporting the organization.

Company expectations were typically around the prompt completion of tasks assigned.

**Academic courses relevant to the project :** Clinical Research, Quality Assurance and Regulatory Affairs



## **PS-II STATION : NOVARTIS- ICSM IMPLEMENTATION SUPPORT RAIDURG, HYDERABAD**

**FACULTY NAME:** BHARATHI R .

**STUDENT Name:** MOUNIKA VARKALA (2023H1530216H)

Student Write-up

### **PS-II Project Title:** ICSM Implementation support

**Short Summary of work done during PS-II :** I worked on implementing Intelligent Clinical Supply Management (ICSM) at Novartis, integrating SAP and IRT to streamline clinical trial supply operations. I analyzed studies by phase and complexity, identified KPIs, and visualized workflows using Visio and Miro. I also consolidated vendor data, flagged data quality aspects, and developed dashboards to highlight performance gaps. Additionally, I reviewed the collaboration tool for completeness and underwent SAP training to understand forecasting and demand planning. These efforts helped improve operational readiness for ICSM migration and enhanced supply chain transparency.

**Tool used (Development tools - H/w, S/w) :** SAP, Visio, Miro, Excel, Power BI

**Objectives of the project :**

- Support the implementation of Intelligent Clinical Supply Management (iCSM) at Novartis.
- Enhance data integrity, process visibility, and decision-making accuracy.
- Analyze clinical studies by phase and complexity to identify operational demands.
- Identify and visualize Key Performance Indicators (KPIs) to track performance trends.
- Consolidate and analyze vendor data to improve traceability and stakeholder clarity.
- Conduct hands-on training in SAP for forecasting and demand planning.
- Review and improve the collaboration tool by identifying incomplete or inconsistent entries and ensuring data readiness for iCSM migration

**Major Learning Outcomes :**

- Proficiency in SAP for clinical forecasting.

- Understanding of CTSM workflows and digital transformation.
- Skills in data visualization using Power BI, Visio, and Miro.
- Experience in cross-functional collaboration and vendor analysis.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** During my internship at Novartis, I had the opportunity to work in a collaborative and knowledge-rich environment. I engaged closely with cross-functional teams, which helped me gain practical exposure to SAP workflows, forecasting, and vendor data analysis. The company encouraged proactive participation, data-driven thinking, and meaningful contributions to their digital transformation efforts. The work culture emphasized teamwork, continuous learning, and

operational excellence—values that aligned well with Novartis’s mission to reimagine medicine through innovation.

**Academic courses relevant to the project :** Clinical Research

**PS-II STATION : NOVARTIS- PHARMOCOVIGILANCE RAIDURG, HYDERABAD**

**FACULTY NAME:** BHARATHI R .

**STUDENT NAME:** PRATIKSHA JADHAV (2023H1460210H)

Student Write-up

**PS-II Project Title:** GVP Module VI Compliance In Pharmacovigilance Safety Case Management Process

**Short Summary of work done during PS-II :** I went through GVP Module VI and company documents and did mapping by aligning gvp module VI with company documentation.

**Tool used (Development tools - H/w, S/w) :** EXCEL

**Objectives of the project :** Ensure regulatory compliance, identify gaps, support audit readiness

**Major Learning Outcomes :** In-depth knowledge of GVP module VI

**Details of Papers/patents :** GVP module VI

**Brief Description of working environment, expectations from the company :** Colleagues are quite supportive and easy to approach.

**Academic courses relevant to the project :** Pharmacovigilance

**PS-II STATION : NUTANIX , BENGALURU**

**FACULTY NAME:** CHANDRA SHEKAR R K .

**STUDENT NAME:** KOKIL SINGH (2020B1A72027H)

Student Write-up

**PS-II Project Title:** Integration of CASK

**Short Summary of work done during PS-II :** Can't share due to confidentiality

**Tool used (Development tools - H/w, S/w) :** Sails.js, Express.js, React, Postgres, Kafka

**Objectives of the project :** - Work and Integrate major features across RE - Collaborate cross-team for certain deliverables

**Major Learning Outcomes :** Increased System Design understanding wrt to Security. Enhanced understanding of Nutanix's business model. Soft skills.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** I had the opportunity to work with the Renewals Engine team, which handles some of the most impact- critical work at Nutanix— where even minor errors can lead to significant losses. Despite this high- stakes environment, the team maintains a supportive and inclusive culture. Every individual contributes to creating a space where you're given ample time to get comfortable with the codebase and integrate smoothly with the team. You're treated with kindness and respect, while professionalism and ownership are deeply valued. Collaboration is strong, and help is always just a message away.

**Academic courses relevant to the project :** Software Engineering

**PS-II STATION : NUTANIX , BENGALURU**

**FACULTY NAME: CHANDRA SHEKAR R K.**

**STUDENT NAME: MEHUL TAMBI (2020B1A72382H)**

Student Write-up

**PS-II Project Title:** Hungry, Humble, Honest with Heart

**Short Summary of work done during PS-II :** Core enhancements include the decoupling of package installation from the upgrade flow, removal of fragile uninstall-install sequences, and introduction of atomic operations to prevent inconsistent states. These changes have resulted in faster upgrades, lower resource consumption, and better compatibility across diverse environments, including macOS and Linux, with seamless CI integration. It also covers the in- place PostgreSQL upgrade from version 10.23 to 16.8 for both SI and HA NDB deployments. The upgrade sequence ensures PG HA components such as Patroni and etcd are upgraded first, followed by the core database on all control plane VMs. This transition brings improved performance, enhanced security, and long-term support, while maintaining alignment with existing NDB provisioning and management workflows.

**Tool used (Development tools - H/w, S/w) :** Different OS versions, Linux, Bash, Python, AOS

**Objectives of the project :** Develop automation tools and version upgrade

**Major Learning Outcomes :** Networking, Communication skills, Development, Automation

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company : NA**

**Academic courses relevant to the project :** OS, OOPS, Comp Arch, DSA, Networking

**PS-II STATION : NUTANIX , BENGALURU**

**FACULTY NAME: CHANDRA SHEKAR R K .**

**STUDENT NAME: PRIYANSHU PRASHANT VERMA (2020B1A72472H)**

Student Write-up

**PS-II Project Title:** Portal Search and SupportGPT

**Short Summary of work done during PS-II :** During my PS-II, I worked on developing and enhancing SupportGPT and portal search systems to improve enterprise support experiences. My core focus was on building retrieval-augmented pipelines for better and faster responses to support queries. I implemented workflows to auto-generate knowledge base (KB) articles from support cases (SFDC side), and handled multilingual support using translation modules. I contributed to bug fixing in retrieval and answer generation logic, improving the relevance and accuracy of generated responses. I worked on indexing Jira comments and support forum content into Elasticsearch to enable hybrid and semantic search. My tasks also included ID matching, enhancing report outputs, linking sources in answers, and refining prompts for better LLM responses. I helped improve SupportBot flows, worked on APIs for listing conversation history, and integrated agentic logic for dynamic and context-aware answers. The work involved using LLaMA models, LangChain, vector search, and elastic pipelines. Overall, the project gave me practical exposure to scalable AI systems for support automation, search infrastructure, and LLM- based summarization and translation workflows.

**Tool used (Development tools - H/w, S/w) :** Software: Python, Elasticsearch, LangChain, LLaMA, Git, VS Code,

**Objectives of the project :** To build and enhance intelligent support systems like SupportGPT and portal search by leveraging retrieval-augmented generation (RAG), summarization, translation, and elastic search.

**Major Learning Outcomes :** Gained practical experience in designing and scaling end-to-end LLM-based applications.

Understood retrieval pipelines, vector indexing, answer generation pipeline , and hybrid and vector search using Elastic and embeddings.

Developed skills in prompt

#### **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Working environment was really good. Regular sync up with my manager helped me know ways in which I can improve my skills. Very supportive and friendly seniors always ready to help and guide you. Regular sync-ups, code reviews, and open discussions helped me understand real-world challenges and improve my technical and opportunity-solving skills.

Had a great time working and the experience helped me grow both technically and professionally.

**Academic courses relevant to the project :** Machine Learning, FODS, NLP,

**PS-II STATION : NUTANIX , BENGALURU ,BENGALURU**

**FACULTY NAME: CHANDRA SHEKAR R K .**

**STUDENT NAME: YASH AGARWAL (2020B1AA2483H)**

Student Write-up

#### **PS-II Project Title: Helm True North**

**Short Summary of work done during PS-II :** This project transforms the management of Kubernetes services by enabling a seamless transition from Kubernetes deployments orchestrated using kubectl commands to Helm-based lifecycle control. It introduces a method to connect pre-existing Kubernetes services, deployed via traditional helm template and kubectl workflows, to Helm without modifying the underlying resources. Once integrated, Helm takes over the complete management of these services, providing a unified, automated, and scalable approach to resource tracking and deployment. The solution retrieves deployment configurations directly from Kubernetes, aligns them with Helm's release specifications, and utilizes enhanced status monitoring to ensure reliability during the transition. By leveraging Helm's upgrade and installation mechanisms, this approach reduces manual intervention, promotes consistency, and improves DevOps practices, ensuring services are exclusively managed through Helm over time.

**Tool used (Development tools - H/w, S/w) :** Kubernetes, Golang, Docker, Helm

**Objectives of the project** : Software Development and Automation, Container Orchestration, CI/CD Optimization

**Major Learning Outcomes** : Kubernetes, Golang, Docker, Helm, CI/CD pipelines

**Details of Papers/patents** : N/A

**Brief Description of working environment, expectations from the company** : Excellent environment, flexible work hours. A team which drives me to do beyond what I think I can do.

**Academic courses relevant to the project** : Computer Programming, Digital Design, Digital Signal Processing, Object Oriented Programming, Communication Networks.

**PS-II STATION : NUTANIX , BENGALURU**

**FACULTY NAME:** CHANDRA SHEKAR R K .

**STUDENT NAME:** SIDDHARTH BHATT (2020B3A32157H)

Student Write-up

**PS-II Project Title:** Making a slack AI agent

**Short Summary of work done during PS-II** : • Developing an intelligent Slack AI Agent integrating Jenkins, Gerrit, & Jira for automating build failure analysis and various queries • SentenceTransformer used for efficiently understanding user intent, Docker used for multi-container microservices architecture, ensuring scalability & portability of services, ready to be deployed into a Kubernetes cluster • FastAPI used for RESTful API endpoints, async request handling & better efficiency, custom metadata-based memory system built using Redis enabling context-aware conversations for handling follow-up questions.

**Tool used (Development tools - H/w, S/w)** : Gerrit, Jenkins, Jira, Qdrant DB, Docker, Postman, FastAPI

**Objectives of the project** : Making a slack AI agent which would automate various daily routine tasks related to Jenkins and Gerrit

**Major Learning Outcomes** : AI, ML, Building Slack Bot from scratch

**Details of Papers/patents** : -

**Brief Description of working environment, expectations from the company** : Great working environment, managers and mentors allotted were very helpful and supportive. You are given

ample time to understand the opportunity statement and devise your algorithm and solution to it, while the same is also fine-tuned during discussions with manager and mentor.

**Academic courses relevant to the project :** OOPS

**PS-II STATION :** NUTANIX , BENGALURU

**FACULTY NAME:** CHANDRA SHEKAR R K .

**STUDENT NAME:** MUHAMMED JIBRAN FAIZ MALIM (2020B3A70367G)

Student Write-up

**PS-II Project Title:** IPv6 and Network Segmentation related

**Short Summary of work done during PS-II :** My work revolved around solving bugs in my sub team's product along with handling IPv6 related aspects. Also worked on security compliance directly requested by a customer.

**Tool used (Development tools - H/w, S/w) :** Python, Java

**Objectives of the project :** Improve workflows and solve related bugs

**Major Learning Outcomes :** Experienced inner workings of an organization; learnt to collaborate

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Work life balance here is ver good. Culture is good too. Would not find a toxic environment in any team.

**Academic courses relevant to the project :** OS. Computer Networks.

**PS-II STATION :** NUTANIX , BENGALURU

**FACULTY NAME:** CHANDRA SHEKAR R K .

**STUDENT NAME:** SOURAV PANIGRAHY (2020B5A32175H)

Student Write-up

**PS-II Project Title:** Visualisation support for multi-cardinality

**Short Summary of work done during PS-II :** Understanding existing code and functionality to improve it further.

**Tool used (Development tools - H/w, S/w) :** Golang ,python, jira

**Objectives of the project :** Improve existing services' functionality

**Major Learning Outcomes :** Working in large codebases, improving networking concepts

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** Very supportive, helpful when needed, resolve doubts when required

**Academic courses relevant to the project :** Computer networking, OOPS, OS, DBMS

**PS-II STATION : NUTANIX , BENGALURU**

**FACULTY NAME: CHANDRA SHEKAR R K .**

**STUDENT NAME: ISHAAN SURAJ KUDCHADKAR (2020B5A70775G)**

Student Write-up

**PS-II Project Title:** Compression Enhancements

**Short Summary of work done during PS-II :** Main project involved compression enhancements for optimizing storage savings. Studied and compared different compression algorithms. ZSTD was the algorithm in focus for this project. In addition to that, had a few side projects including debugging and correcting a few bugs and replicating a long standing aspect scenario to come up with a solution.

**Tool used (Development tools - H/w, S/w) :** C++, Docker, Kubernetes, Nutanix internal tools

**Objectives of the project :** Optimization, Storage

**Major Learning Outcomes :** Learned about distributed systems, file systems, compression Algorithms, kubernetes, Docker. Also, soft skills, working as a team.

**Details of Papers/patents :** No patents

**Brief Description of working environment, expectations from the company :** Great working environment. Team has been utmost helpful at every juncture. All my doubts are answered immediately.



**Academic courses relevant to the project :** Operating Systems, Computer Architecture, Computer Networks

**PS-II STATION : NUTANIX , BENGALURU**

**FACULTY NAME: CHANDRA SHEKAR R K .**

**STUDENT NAME: AYUSH BHAUWALA (2021A7PS0180H)**

Student Write-up

**PS-II Project Title:** Alternatives for Grafana, Move In-Place

**Short Summary of work done during PS-II :** I worked on finding a suitable replacement for Grafana. This involved researching and exploring various tools for visualization of system level metrics. Next I worked on the frontend development for a new feature which helped me get a much better understanding of React hooks and Redux.

**Tool used (Development tools - H/w, S/w) :** Docker, Prometheus, Typescript, React, Redux

**Objectives of the project :** Find a suitable replacement for Grafana for metrics visualization.

**Major Learning Outcomes :** I learnt about virtualization, understanding hypervisor, virtual machines and containers. I gained hands-on experience with system-level metrics collection and visualization, utilizing tools like Prometheus, Node Exporter, and cAdvisor.

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Nutanix has a great working environment and culture. Weekly sync-ups help keep the project on track and ensure consistent progress. Work life balance is very good and work timings are respected. Mentors and manager are very approachable and ready to help. Workload is well managed and balanced.

**Academic courses relevant to the project :** Computer Networks, Operating Systems

**PS-II STATION : NUTANIX , BENGALURU**

**FACULTY NAME: CHANDRA SHEKAR R K .**

**STUDENT NAME: TARIMALA VIGNESH REDDY (2021A7PS0234H)**

Student Write-up

## **PS-II Project Title: Move-Build-Improvements, CFDs**

**Short Summary of work done during PS-II :** Move-Build-improvements: Separated UI and backend builds in move, ensuring that devs do not need to build redundant services. Implemented a solution called Fast Build which can help speed up build time by at least 50%. This will ensure that devs can enter only the details of the services they want and not run all services by default. Only minimal services required to build the service are compiled. Worked on optimizing test suites for Move. Eliminated redundant connections to ETCD clients etc during testing, which saves time taken for retries and also makes test logs more readable. The process of starting and stopping test servers was also optimized saving at least 12s per test in most packages. The overall build time for each build was reduced from 44-49 minutes to 23-27 minutes. I also integrated VSCode's test suite with Move dev-vms. Devs can use a script and a VSCode extension to enable the required services along with a test container and use VSCode's GUI for testing thus avoiding testing via CLI which is tedious. Password Management Tools Integration - POC: Provided a Proof of concept to integrate password management tools/Identity providers to authenticate VMs with Nutanix Move, this will help users to skip manually entering VM credentials each time and save a lot of time. We ensure that no credentials are stored on Nutanix's database ensuring privacy for the users. Also provide a plugin based system which can be used to easily integrate new identity providers in the future. CFDs: Solved 8 bugs, which were customer reported aspects about the Product.

**Tool used (Development tools - H/w, S/w) :** Move, Docker, Jira, Gerrit

**Objectives of the project :** Improve Move-build-scripts, Integrate tools for developer productivity, Solve Customer Aspects related to the product

**Major Learning Outcomes :** Using Move platform for migrating VMs from one hypervisor to another. Optimizing Build Scripts, Scripting, Cloud-Computing

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** During my internship, I had the opportunity to work in a highly collaborative and growth-oriented environment. I was trusted with meaningful responsibilities and encouraged to contribute actively to ongoing projects. The company maintained a healthy work-life balance and offered flexibility that allowed me to manage my tasks effectively. I appreciated the structured onboarding, supportive team dynamics, and access to resources that helped me quickly get up to speed. Overall, my internship was both rewarding and inspiring, setting a strong foundation for my professional journey

**Academic courses relevant to the project :** Software Engineering, DBMS, OS

**PS-II STATION : NUTANIX, PUNE**

**FACULTY NAME: CHANDRA SHEKAR R K.**

**STUDENT NAME: ADEESH GARG . (2021A7PS0446P)**

Student Write-up

**PS-II Project Title:** DL Classification

**Short Summary of work done during PS-II :** First few weeks, researched on some models to find what works best for our use case. Prepared POC docs. Then implemented a end to end tool in accordance with team needs. Solved some JIRA tickets as bugs or improvements. Then shifted to deep llm research and distillation processes.

**Tool used (Development tools - H/w, S/w) :** Nvidia GPU Lovelace, Docker, Kubernetes, Nats, Go, Java, Python

**Objectives of the project :** To make a robust CPU based PII detector

**Major Learning Outcomes :** Learnt a lot about development of LLMs on CPUs and learned Go as a new language. Also, exposure to docker and kubernetes for deployment and scalability.

**Details of Papers/patents :** CAN NOT BE DISCLOSED

**Brief Description of working environment, expectations from the company :** Very healthy working environment, team is very supportive and fun. Stress free environment with healthy clean working spaces.

**Academic courses relevant to the project :** DBMS, Computer networks, OOP

**PS-II STATION : NVIDIA GRAPHICS – BENGALURU**

**FACULTY NAME: KRANTHI KUMAR PALAVALASA**

**STUDENT NAME: BILAL SHAIKH (2021A3PS0855H)**

Student Write-up

**PS-II Project Title:** SOC Timing Analysis

**Short Summary of work done during PS-II :** Initially few weeks were given to learn Python and VLSI concepts on setup and hold and other violations . After the theoretical part was covered , i focused on writing scripts in Tcl and python and I wrote about 6 of them which were final

consolidated after many feedback reviews . Later , with the help of STA tool , we fixed about most of the violations and the remaining violations , We fixed them manually for respective chiplets

**Tool used (Development tools - H/w, S/w) :** Internal STA tool

**Objectives of the project :** Enhancing existing checkers and developing few checkers to help in pre and post layout timing and cleaning violations on the chiplet

**Major Learning Outcomes :** Learn Python and tcl scripting which helped me to write scripts which were being used in the project . I have developed a solid knowledge on Vlsi concepts and implementing them to solve timing violations in real time chiplet in just 4 months here owing to

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment is great and dynamic and growth-oriented . My team has always been ready to help me out whenever I got stuck and you are expected to learn things by asking around and not waiting idly for some training or someone to come and explain . Its a good idea to keep updating mentor and manager with the progress of your work too and always show your interest in working on new tasks and not sit idly when your given task is done . Don't hesitate to ask doubts too.

**Academic courses relevant to the project :** Digital Design , ADVD , FPGA lab

## **PS-II STATION : NVIDIA GRAPHICS – BENGALURU**

**FACULTY NAME:** KRANTHI KUMAR PALAVALASA

**STUDENT NAME:** CHINMAY SOGANI (2021A3PS1148G)

### **Student Write-up**

**PS-II Project Title:** Convergence of Formal Proof in Input Output Bridge

**Short Summary of work done during PS-II :** The project focused on improving the convergence of formal proofs for an Input-Output Bridge (IOB), a critical component in system-on-chip designs. Formal verification methods were used, which rely on mathematical reasoning rather than simulation to validate correctness. The work was divided into two main parts: arbiter convergence and full path checks. For arbiter convergence, the goal was to verify valid-ready handshake properties, ensuring freedom from starvation and deadlocks across multiple arbiters. Techniques like cut-point abstraction, cone-of-influence (COI) reduction, and pairwise property checks were applied to reduce complexity. In the second part, full path checks were used to validate end-to-end data propagation across complex sequential paths within the IOB. These

paths included components such as protocol logic, FIFOs, buffers, and arbiters. Multiple abstraction strategies were used, including memory depth and data width reduction, boundary- box abstraction, and compositional assume-guarantee reasoning. The project provided deep insights into abstraction strategies, tool usage, and convergence behavior in formal verification workflows, highlighting the importance of scalable and modular proof techniques in verifying complex digital systems.

**Tool used (Development tools - H/w, S/w) :** Perforce, Jasper Gold, System Verilog Assertions

**Objectives of the project :** This project focuses on improving the convergence of formal proofs in an Input-Output Bridge (IOB) using various abstraction techniques, such as cut points, symbolic variables, boundary boxing, counter/FIFO depth reduction, data width reduction and reset abstractions.

**Major Learning Outcomes :** Formal Verification, Verification Strategies

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** NVIDIA provided a collaborative and learning-focused environment, encouraging hands-on work with real-world systems. Interns were expected to be proactive, detail-oriented, and deliver reliable, well- documented technical solutions. Guidance was available, but independent opportunity-solving and initiative were highly valued.

**Academic courses relevant to the project :** Computer Architecture, Digital Design

## **PS-II STATION : NVIDIA GRAPHICS - BENGALURU**

**FACULTY NAME:** KRANTHI KUMAR PALAVALASA

**STUDENT NAME:** ADNAN ALTAF (2021A3PS2831H)

Student Write-up

**PS-II Project Title:** Enhancing the Tracking Flow of Clock Gating Verification Methodology & Making Low Power Sanity Scripts

**Short Summary of work done during PS-II :** A new tracking flow was built from scratch to improve the clock gating (CG) verification process. It uses a database and dashboard to automate tracking, which helped cut down on manual work and saved time. The system also makes it easier to catch and follow up on bugs. It's designed to scale, so it can support other CG features and projects in the future. The flow is now live and being used in ongoing NVIDIA projects, making the overall process more efficient and reliable. Low power sanity checks were implemented to support

power estimation and modeling analysis. These checks helped ensure correctness and consistency in low power modeling.

**Tool used (Development tools - H/w, S/w) : Python**

**Objectives of the project :** Designed and implemented a new tracking infrastructure for clock gating (CG) verification methodology from the ground up. Developed low power sanity checks to support power estimation and modeling analysis.

**Major Learning Outcomes :** A deeper understanding of low power design principles, including how features like clock gating are implemented, triggered, and optimized for performance and energy efficiency. Gained hands-on experience with power modeling and estimation, as well as how

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The work environment was really positive. People were approachable, supportive, and easy to work with, which made day-to-day tasks smoother and more enjoyable. There was a good balance between work and personal time, and overall, it felt like a place where you could do your best without feeling overwhelmed.

**Academic courses relevant to the project :** Digital Design, ADVD

**PS-II STATION : NVIDIA GRAPHICS - BENGALURU ,**  
**FACULTY NAME: KRANTHI KUMAR PALAVALASA**  
**STUDENT NAME: KHUSHI JAIN (2021A8PS3006H)**

Student Write-up

**PS-II Project Title:** Demandingware intern

**Short Summary of work done during PS-II :** Helped in validation of few chips and worked on few automation tasks

**Tool used (Development tools - H/w, S/w) :** Internal tools, VS code

**Objectives of the project :** Test plan enhancement

**Major Learning Outcomes :** Learnt about high speed IO and their working

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Great place to work, everybody in the company is very helpful

**Academic courses relevant to the project : Yes**

**PS-II STATION : NVIDIA GRAPHICS – BENGALURU**

**FACULTY NAME: KRANTHI KUMAR PALAVALASA**

**STUDENT NAME: SAMUDRALA LAKSHMI SRILEKHA (2023H1230164H)**

Student Write-up

**PS-II Project Title:** Ensuring Software compatibility in Register specifications across a family of chips

**Short Summary of work done during PS-II :** This project focuses on ensuring Software compatibility by maintaining fixed register address allocation across different chip variants in SoC designs. In existing flows, when registers are removed due to chip-specific configurations, automation tools such as Perl scripts dynamically adjust register offsets. This results in address shifts and changes to related enums and bit fields, causing inconsistencies in the memory map and increasing the complexity of software development and debugging. To address this, a solution was developed to reserve the address space of removed registers rather than allowing automatic reallocation. This preserves the memory layout, ensuring that subsequent registers retain their original addresses across all variants. Initially applied to PMC (Power Management Controller) registers, the solution was later generalized to support any register block in the SoC. The approach involves identifying automatically generated registers through controlled modifications of input CSV files and observing the changes in the generated spec files. Once identified, the automation scripts were modified to mark removed entries as reserved instead of shifting others. This generic framework ensures a stable and consistent memory map, simplifies software integration, enhances cross-chip compatibility, and reduces maintenance overhead. It is designed to be scalable and reusable, supporting multiple demanding ware modules and future SoC developments.

**Tool used (Development tools - H/w, S/w) :** Perl, Perforce P4V, VNC

**Objectives of the project :** To maintain the register specification files consistent even when some specifications are removed from variants of chip to chip

**Major Learning Outcomes :** Perl, Vim, Cursor AI Usage, Corporate skills

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The work environment involved good understanding skills for new concepts. It required strong analytical skills, attention to detail, the ability to trace and debug the opportunity.

**Academic courses relevant to the project :** VLSI Architecture

**PS-II STATION : NXP INDIA PVT LTD, BENGALURU**

**FACULTY NAME: HARISH KUMAR J. R.**

**STUDENT NAME: SUMAN BISWAJIT MONDAL (2021AAPS1696G)**

Student Write-up

**PS-II Project Title: API sequence Generator**

**Short Summary of work done during PS-II :** The project involved developing an automated API sequence generator using a RAG-based approach to convert natural language queries into executable C code for embedded systems. The tool was designed to handle different use cases like Ranging and Radar by retrieving the appropriate API sequences and applying parameter modifications such as frame intervals or repetitions. Modular databases were created to store API information, arguments, and use case mappings. The generator produces standalone, flashable C files, enabling direct demandingware testing. Additional work included building supporting tools like a GUI for battery life estimation and an energy breakdown tool, further enhancing analysis and development efficiency.

**Tool used (Development tools - H/w, S/w) :** VSC, Keil, T32 Lauterbach, Synopsys

**Objectives of the project :** To make a chatbot that can generate API sequences based on user query to perform specific use cases.

**Major Learning Outcomes :** Python, ML, LLM, Embedded systems

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was technically enriching and supportive, providing access to industry-standard tools like Keil uVision, T32, ChessDE, and Visual Studio. I was part of a team focused on embedded systems, where I was encouraged to take ownership of tasks—from developing the API sequence generator to testing outputs on demandingware. Expectations from the company included writing clean, efficient, and scalable code, along with clear communication and timely progress



updates. Regular discussions with mentors ensured alignment with project goals, while the environment promoted both hands-on learning and independent opportunity-solving, enabling me to contribute meaningfully to the team's objectives.

**Academic courses relevant to the project :** C Programming, Operating systems, DSA, ML, OOP, DBMS

**PS-II STATION : NYKAA - DATA SCIENCE ,BENGALURU**

**FACULTY NAME: SWARNA CHAUDHARY .**

**STUDENT NAME: ADITYA DASH (2023H1030085P)**

Student Write-up

**PS-II Project Title:** Improving Spellcheck in Search

**Short Summary of work done during PS-II :** The project entails creating a robust low latency spelling correction model. Tasks in this project include gathering information conducting market research, creating a comprehensive evaluation dataset as well as testing data, creating a pipeline for spellcheck using LLMs and training a robust model on this data.

**Tool used (Development tools - H/w, S/w) :** Databricks, Spark, DSPy

**Objectives of the project :** To deliver a small finetuned model for spellcheck in the search pipeline

**Major Learning Outcomes :** Learning how to handle processing on big data using Spark, Finetuning a pretrained transformer model, Developing pipelines for automated data processing, LLM and prompt engineering, Using DSPy to engineer prompts effectively

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The company fosters an engaging, cooperative work environment, promoting openness and inclusivity. Interns have access to advanced tools and resources, allowing them to contribute meaningfully to projects. The culture values strong teamwork, mutual support, and enthusiasm. Interns are encouraged to be proactive, manage time efficiently, meet deadlines, and positively impact team initiatives. Professionalism, a solid work ethic, and harmonious collaboration with diverse backgrounds are highly valued.

**Academic courses relevant to the project :** Information retrieval

**PS-II STATION : NYKAA - DATA SCIENCE ,BENGALURU**

**FACULTY NAME: SWARNA CHAUDHARY .**

**STUDENT NAME: SAURAV S (2023H1120184P)**

Student Write-up

**PS-II Project Title:** Two-Tower Architecture For Candidate Retrieval in E-Commerce Recommendations

**Short Summary of work done during PS-II :** During my PS-II internship at Nykaa, I worked on building a personalized candidate retrieval system for both the Fashion and Beauty verticals. The core of the project involved implementing a Two-Tower deep learning model that learns embeddings for customers and products based on clickstream interaction data. I designed and trained two variants of the model—a baseline version using only encoded IDs, and a feature- enriched version that incorporated metadata such as product categories, brand, gender, user platform, and affluence segment. I performed extensive data preprocessing, including session filtering, product frequency filtering, binning of numerical features, and label encoding. For training, I used contrastive learning with in-batch negative sampling and optimized the models using InfoNCE loss. After training, I evaluated the embeddings through unsupervised clustering (K-Means) and computed entropy reduction across features to check for semantic grouping. Additionally, I performed offline evaluation using real user behavior to calculate NDCG and Precision@K scores. Through this work, I compared the trade-offs between semantic expressiveness and retrieval performance in baseline vs enriched models, and gained practical experience in deep learning-based recommendation systems.

**Tool used (Development tools - H/w, S/w) :** The project was developed primarily using TensorFlow for model implementation and training, and PySpark for distributed data processing and feature engineering. FAISS was used for efficient similarity search during evaluation. Other tools included scikit-

**Objectives of the project :** The objective of the project was to design and implement a scalable, personalized candidate retrieval system for Nykaa’s Fashion and Beauty platforms using a Two- Tower deep learning architecture. The aim was to learn meaningful customer and product embeddings from clickstream data, which could be used to retrieve relevant product recommendations efficiently. Two versions of the model were built—a simple baseline using only IDs, and a feature-enriched version that incorporated catalog and behavioral metadata. The final goal was to evaluate the quality of these embeddings using clustering-based entropy reduction and offline ranking metrics like NDCG and Precision.

**Major Learning Outcomes :** During the internship, I gained hands-on experience in building scalable deep learning models for large-scale recommendation systems. I developed a strong understanding of contrastive learning, embedding architectures, and offline evaluation techniques li

**Details of Papers/patents** : I have not published any papers or filed any patents as part of this internship. However, I referred to several research papers and industry blogs to guide the implementation of the Two-Tower recommendation model and evaluation techniques. These included

**Brief Description of working environment, expectations from the company** : The working environment at Nykaa was collaborative, intellectually stimulating, and well-structured for learning. I was part of the Data Science team, where regular sync-ups, review meetings, and open communication channels helped me stay aligned with project goals. The team maintained a healthy balance between guidance and independence, allowing me to explore, experiment, and take ownership of my work. My mentor and teammates were approachable and supportive, offering valuable feedback and technical insights whenever needed. The internship followed a milestone-driven approach, which kept the work organized and gave me a clear roadmap.

In terms of expectations, I anticipated exposure to real-world machine learning opportunities, practical implementation of deep learning models, and opportunities to enhance my data handling skills-and Nykaa delivered on all fronts. I also expected timely guidance from mentors, access to relevant tools and datasets, and a space to showcase my learnings. The company culture was inclusive and professional, with interns being treated as contributing members of the team. Overall, the internship exceeded my expectations by offering not only technical growth but also insights into how large-scale ML systems are developed and evaluated in an industry setting.

**Academic courses relevant to the project** : Introduction to Data Mining, Information Retrieval, Research Practice.

**PS-II STATION : NYKAA - PRODUCT, GURGAON**  
**FACULTY NAME: SWARNA CHAUDHARY .**

**STUDENT NAME: SHREYA AMBHORE . (2020B2AA1946P)**

Student Write-up

**PS-II Project Title:** Enhancing Adtech at nykaa

**Short Summary of work done during PS-II** : During my internship at Nykaa, I contributed to enhancing the capabilities of the company's in-house AdTech platform. My work involved a mix of data-driven analysis, product research, and cross-functional collaboration. I played an active role in identifying gaps through deep data analysis, proposing new product features, drafting PRDs, and working closely with both the business and engineering teams to define the roadmap. A significant part of my role was also brand-facing — analyzing ad performance data to troubleshoot aspects for brand partners and improve their experience on the platform. I

independently developed dashboards to track daily ad performance metrics, which enabled more informed decision-making and highlighted areas for optimization.

**Tool used (Development tools - H/w, S/w) :** Sql, databricks,Tableau,Excel

**Objectives of the project :** Improve capabilities of adtech platform by suggesting new features,metrics through data analysis

**Major Learning Outcomes :** 1. Data-Driven Product Thinking: Learned to translate data into actionable insights for product decisions.

2. Cross-Team Collaboration: Gained experience working with both technical and business teams to align goals and priorities.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Nykaa was dynamic, fast-paced, and highly collaborative. As a Product Management Intern, I had the opportunity to work closely with cross-functional teams including business, engineering, and data analytics. The culture encouraged ownership, open communication, and quick decision-making. Despite the fast-moving nature of the AdTech space, there was a strong emphasis on structured thinking, data-driven opportunity solving, and continuous learning. I was given the autonomy to explore ideas and contribute meaningfully to product discussions, while also receiving valuable mentorship and guidance from experienced professionals.

**Academic courses relevant to the project :** Dbms

**PS-II STATION : OF BUSINESS, GURUGRAM**

**FACULTY NAME: ASHISH NARANG .**

**STUDENT NAME: SHAIK AMAAN PARVEZ (2023H1030085H)**

Student Write-up

**PS-II Project Title:** Improving Business Efficiency through Modern Spring Boot Practices

**Short Summary of work done during PS-II :** During my PS-II at OfBusiness, I worked as a Full- Stack Developer in the SMEAssist team, where I contributed to enhancing the platform's functionality and performance to better serve Small and Medium Enterprises (SMEs). My primary focus was on building scalable backend features and optimizing existing workflows using Java, Spring Boot, MySQL, and Redis. Key contributions included developing a feature for bulk item attribute editing via Excel upload, enabling admins to perform large-scale updates efficiently. I also optimized the sales dashboard by reducing API latency through SQL query tuning and Java's SharedExecutorService for concurrent execution. To further enhance API performance, I

implemented data slicing using Spring Data's Slice interface to eliminate expensive count queries. Additionally, I designed the FOC (Free of Cost) invoice generation system to automate the processing of sample sales orders, integrating it with the financial ledger to maintain accurate payables. Another critical task involved refactoring the audit report system to split permission- level changes into discrete, timestamped logs for improved traceability and compliance. Throughout the internship, I collaborated with cross-functional teams, including product and QA, gaining hands-on experience in building production-grade systems. This internship strengthened my technical foundation, opportunity-solving abilities, and understanding of real-world enterprise application development.

**Tool used (Development tools - H/w, S/w) :** Java, Spring Boot, React, MySQL, Redis, Maven, Git, Github, IntelliJ IDEA, VSCode

**Objectives of the project :** Contribute to the SMEAssist team as a software developer (full stack) to solve bugs, develop new features and optimize the existing processes.

**Major Learning Outcomes :** Developed a strong understanding of Core Java, Spring Boot, React  
Understood the collaborative working process of different teams in a real-world corporate scenario

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Of Business was dynamic, collaborative, and performance-driven. As part of the SMEAssist team, I experienced a fast-paced yet structured workflow where each developer had ownership over key modules. The company fosters a strong engineering culture focused on writing clean, maintainable code and solving real business opportunities with scalable solutions. Team members were approachable and supportive, and there was a clear emphasis on cross- functional collaboration — involving backend, frontend, product, and QA teams. Daily stand-ups, regular sync-ups, and code reviews ensured alignment and continuous improvement. The feedback culture was constructive, helping me refine my coding practices and architectural thinking.

From the company, the expectations were high but realistic. Interns were treated as contributors, not just observers. I was expected to understand business logic, write production-level code, test thoroughly, and deliver within timelines. Opportunity-solving, accountability, and quality of work were key performance markers.

Additionally, there was a strong emphasis on understanding the “why” behind every feature, not just implementing the “what.” This helped me align technical decisions with real-world impact. Documentation, clean commits, and reusable code were encouraged to ensure long-term maintainability. Overall, the experience was enriching and growth-oriented, offering a balance of guidance and autonomy that allowed me to significantly improve both my technical and professional skills.

**Academic courses relevant to the project :** OOPS, Operating Systems

**PS-II STATION : ORACLE, BANGALORE**

**FACULTY NAME:** SRINATH R.NAIDU .

**STUDENT NAME:** SARTHAK DHIMAN (2020B1A72413H)

Student Write-up

**PS-II Project Title:** beq support Aix

**Short Summary of work done during PS-II :** worked on supporting bequeath collection in Aix.

**Tool used (Development tools - H/w, S/w) :** Cpp

**Objectives of the project :** beq support on Aix

**Major Learning Outcomes :** os , ipc , oci lib

**Details of Papers/patents :** na

**Brief Description of working environment, expectations from the company :** It is very nice.

**Academic courses relevant to the project :** os

**PS-II STATION : ORACLE, BANGALORE**

**FACULTY NAME:** SRINATH R.NAIDU .

**STUDENT NAME:** GANDHI SHANAY RAHUL (2020B2A72072G)

Student Write-up

**PS-II Project Title:** DEVELOPMENT OF INCIDENT AGENT AS PART OF AGENTIC AI SYSTEM

**Short Summary of work done during PS-II :** Developed an Incident agent which scans and stores the incidents, and is capable of performing various actions like summarizing, triaging, finding similar incidents and much more using GenAI components like LLMs and Vector databases

**Tool used (Development tools - H/w, S/w) :** OCI GenAI, Oracle DB, Postgres, Slack as interface, Docker, Python, SCM (For Source control)

**Objectives of the project :** To build a robust incident agent as part of a larger agentic system, which can perform various actions as find similar bugs/jiras, triage them, give summary, resolution, give a timeline summary for a jira/bug and do RCA for a given jira/bug.

**Major Learning Outcomes :** Learnt how to develop an agent from scratch, involving scanning multiple jiras, chunking them, storing them into a vector database after generation of embeddings, and implementing the given use cases for the agent, learnt how to fit in an agent.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The work environment is very nice and helpful, people are always willing to help and share knowledge, company has good learning courses too which are very beneficial to improve your learning skills and is encouraged , For interns , the company does want them to come every day to office , which is very beneficial from learning POV, whereas a full time employee comes only 2 days/week

**Academic courses relevant to the project :** GenAI, Machine Learning, OOP, Database Systems, DSA

**PS-II STATION : ORACLE, BANGALORE**

**FACULTY NAME: SRINATH R.NAIDU .**

**STUDENT NAME: SHREY MEHTA (2020B3A71459G)**

Student Write-up

**PS-II Project Title: Perimeter Service**

**Short Summary of work done during PS-II :** During my PS-II, I worked on the development of the Perimeter Service, a governance layer within Oracle's cloud infrastructure designed to ensure that virtual machines (DomU instances) operate within a secure and compliant boundary, referred to as the perimeter. The service bridges the gap between internal system agents (Service A), which monitor and enforce configurations inside DomUs, and customer-facing interfaces (Service C), where users define and manage their infrastructure policies. My contributions included designing and implementing core components for drift detection, which identifies unauthorized deviations from approved configurations, and integrating policy evaluation logic that continuously assesses whether a DomU is operating within the defined perimeter. I also worked on writing Terraform modules to provision cloud resources automatically, ensuring consistent infrastructure across environments. Significant focus was placed on writing clean, testable code with around 80% unit test coverage, which ensured reliability and enabled safe iterations. I also helped design database schemas to track agent telemetry, customer policies, and drift history.

**Tool used (Development tools - H/w, S/w) :** demanding ware: Oracle Cloud Infrastructure (OCI) virtual machines (DomU instances). Software: Programming Languages: Java, Python, bash script. Infrastructure Automation: Terraform. Version Control: Git, GitHub. Build Tools: Maven. Monitoring & Logging: OCI Mo

**Objectives of the project :** The primary objective of the Perimeter Service project is to ensure that Oracle DomU instances remain within a defined, secure, and compliant operational state— referred to as the "perimeter", by constantly monitoring the health of the concerned systems. It analyses cases where the systems go out of this perimeter by violating critical constraints, and recommending solutions to bring the systems back to a positive and professional state.

**Major Learning Outcomes :** The **Major Learning Outcomes** of the project include a deep understanding of managing cloud infrastructure using Terraform and OCI, implementing effective drift detection mechanisms using Java, and simulating real time events using Python for end-to- end tes

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The working environment is great. The team encourages productivity, but there is also no pressure or micromanagement. The Bangalore office is amazing and the people were really helpful and friendly. There are no constraints of coming to office (for most teams). I learnt a lot of new things and the mentors and manager were also really helpful. Overall, an amazing experience.

**Academic courses relevant to the project :** DBMS, Object Oriented Programming, Operating Systems, Computer Networks.

**PS-II STATION : ORACLE, BANGALORE**

**FACULTY NAME: SRINATH R.NAIDU .**

**STUDENT NAME: TANMAY SATIJA (2020B3A71516G)**

Student Write-up

**PS-II Project Title: Security Assessment Tool**

**Short Summary of work done during PS-II :** As an IT intern at a database company, I assisted in database management, performed data validation, and supported routine maintenance tasks. I helped optimize queries, monitored system performance, and collaborated with the IT team to troubleshoot technical aspects. I also gained hands-on experience with SQL and data handling tools.



**Tool used (Development tools - H/w, S/w) :** Sql, Python, Java, Shell script

**Objectives of the project :** To Enhance Security Assessment Tool

**Major Learning Outcomes :** During my internship, I gained valuable practical experience that enhanced my academic knowledge. I developed strong communication, time management, and teamwork skills by collaborating on real-world projects. I learned to apply theoretical concepts.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The work environment was professional, collaborative, and technology-driven. I worked closely with experienced IT professionals in a supportive team setting. The atmosphere encouraged learning and opportunity-solving, with regular guidance from mentors. The company maintained a structured workflow while promoting open communication and continuous improvement through feedback and knowledge sharing.

**Academic courses relevant to the project :** DBS, DSA, OS

**PS-II STATION : ORACLE, BANGALORE**

**FACULTY NAME:** SRINATH R.NAIDU .

**STUDENT NAME:** RADHIKA JAYAN NAIR (2021A7PS0005G)

Student Write-up

**PS-II Project Title:** AI-Powered Test Case Generation Tool

**Short Summary of work done during PS-II :** The project focuses on automating test case generation including automating the generation of SQL queries using AI, improving efficiency and innovation in software testing at Oracle. The tool leverages advanced AI techniques such as vector embeddings, vector similarity search, and retrieval-augmented generation (RAG) to generate test cases. By integrating models like Llama-3.3, and sentence-transformers, the system retrieves relevant contextual information and generates accurate and diverse test cases. This automation reduces manual effort, enhances test coverage, and ensures the inclusion of edge cases.

**Tool used (Development tools - H/w, S/w) :** VSCode, Google Colab, Oracle Database, Oracle Cloud Infrastructure

**Objectives of the project :** Improve the efficiency of the test engineers, more comprehensive testing

**Major Learning Outcomes :** Introduction to AI, LLMs, testing and test automation

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The team is very supportive and encouraging. There was constant communication with the mentor and the project lead to define expectations, track progress and brainstorm.

**Academic courses relevant to the project :** CS F407 – AI

**PS-II STATION : ORACLE, BANGALORE**

**FACULTY NAME: SRINATH R.NAIDU .**

**STUDENT NAME: SIDDHANT SRINIVAS (2021A7PS0050H)**

Student Write-up

**PS-II Project Title:** Slackbot for Exadata and OCI

**Short Summary of work done during PS-II :** I designed a framework with multiple functionalities including a chatbot capable of answering questions on internal and external documents, using a RAG pipeline. Other functionalities include: Scanning new data, Quiz Endpoint for new hires, Zoom MoM generator.

**Tool used (Development tools - H/w, S/w) :** Python, Langchain, Huggingface rerankers, Oratst, OCI Gen AI console, Flask, Chainlit, JavaScript, SQL Developer

**Objectives of the project :** Developing a framework capable of Q&A, quiz generation, Zoom MoM generation and other functionalities

**Major Learning Outcomes :** Proficiency in using Gen AI frameworks in python, Proficiency in Backend Web Development, Oratst framework

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was excellent, I never faced any roadblocks because my team was extremely approachable and helpful. Most of my tasks were assigned with a deadline I could choose for myself.

**Academic courses relevant to the project :** CS F213(OOPS), CS F437 (Generative AI)

**PS-II STATION :** ORACLE, BANGALORE

**FACULTY NAME:** SRINATH R.NAIDU .

**STUDENT NAME:** ACHINTHYA HEBBAR S . (2021A7PS1457P)

Student Write-up

**PS-II Project Title:** Improvements in data discovery and masking

**Short Summary of work done during PS-II :** Internship Summary – Oracle Data Safe During my internship with the Database Security Group at Oracle, I worked extensively on Oracle Data Safe, a cloud-based service that secures sensitive data in Oracle databases. The platform offers features like data discovery, activity auditing, data masking, user assessments, and security assessments. My primary responsibilities involved understanding the codebase, identifying security aspects, and contributing to product improvements. I began by setting up a stable development environment and familiarizing myself with the codebase. A significant part of my contribution involved discovering and fixing security vulnerabilities through careful code analysis. These fixes were impactful and well-received by the team. I also worked on enhancing core features, especially around data masking and API improvements. These tasks deepened my understanding of securing data and building enterprise-scale software. Interaction with senior team members was a highlight of the internship. Their mentorship helped refine my opportunity- solving skills and gave me a deeper technical perspective. Through regular sprint tasks, I gained hands-on experience in backend development and security-focused coding practices. The internship gave me a strong foundation in database security and practical experience in handling large-scale systems. I am excited to continue contributing to Oracle Data Safe as a full-time employee. I also thank Prof. Srinath R Naidu for his support and feedback throughout the internship, which helped me align my work with user expectations and industry standards.

**Tool used (Development tools - H/w, S/w) :** S/w : Java, SQL

**Objectives of the project :** Improving the masking service provided by Oracle through its cloud product Data Safe

**Major Learning Outcomes :** Corporate project file structure, Database connectors, SQL Injection, kiev buckets etc

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** 1. Work from office is not mandatory but expected. Official policy is 3 out of 5 days.

2. Some teams give dedicated projects to the intern, this one has a more relaxed timeline and environment and generally only the mentor/manager as points of contact. Others treat the intern almost as an employee and is expected to contribute to the regular sprint tasks.

**Academic courses relevant to the project :** Database management

Data Structures and Algorithms

Cryptography

**PS-II STATION : ORACLE, BANGALORE**

**FACULTY NAME:** SRINATH R.NAIDU .

**STUDENT NAME:** AGRAWAL VANSI ANIL . (2021A7PS2215P)

Student Write-up

**PS-II Project Title:** DDL generation for Error Reproduction

**Short Summary of work done during PS-II :** This internship culminated in the successful development of two impactful AI-powered systems aimed at improving developer productivity within Oracle. The first project, Automating DDL Generation for SQL Debugging, addressed the challenge of reproducing customer-reported SQL aspects without access to full schemas. The developed agent used a Large Language Model (LLM) to parse SQL statements, infer table structures, generate valid DDLs, initialize bind variables, and insert synthetic data. A robust retry and error recovery mechanism ensured test package generation with minimal manual intervention, significantly accelerating the debugging process. The second project, Unified AI Chatbot for Oracle Tools and independent chatbots, streamlined access to over a dozen internal AI tools by creating a single chatbot interface powered by the LangChain framework. This agent intelligently routed natural language queries to the appropriate internal APIs based on LLM- driven intent detection. The chatbot improved transparency by displaying intermediate reasoning steps and fostered a seamless user experience for developers, reducing the need to switch between multiple systems. Both systems exemplify the value of intelligent agents in enterprise development workflows, laying the foundation for future AI-first automation in debugging and internal tooling at Oracle.

**Tool used (Development tools - H/w, S/w) :** Python, Langchain, Langgraph, Oracledb

**Objectives of the project :** To automate the process of generating a DDL using a SQL.

**Major Learning Outcomes :** Using LLMs, making workflows, Cross team interactions, Making and Testing production level applications

## **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Oracle was extremely welcoming, collaborative, and conducive to learning. From the very beginning of the internship, I felt well-supported by my mentor and the larger team. Everyone was approachable and always willing to help, whether it was related to understanding technical concepts, navigating internal tools, or resolving blockers in the project. There was a strong culture of knowledge sharing and open communication.

One of the most appreciated aspects of the work environment was the flexibility it offered. Interns had the freedom to choose their working hours based on what suited them best, which helped maintain a good work-life balance. Additionally, there was no compulsion to work from the office on specific days. The option to work from home at any time provided a great level of convenience and reflected the company's trust in its interns and employees.

Oracle's expectations were clear yet flexible. We were encouraged to take ownership of our projects, deliver meaningful outcomes, and learn as much as possible during the internship. Regular sync-ups helped in staying aligned with goals, and feedback was constructive and motivating.

Overall, Oracle provided an excellent professional environment with a good mix of autonomy, mentorship, and flexibility—making it an ideal place for personal and professional growth.

**Academic courses relevant to the project : DBMS, DL, OOP**

## **PS-II STATION : ORACLE, BANGALORE**

**FACULTY NAME: SRINATH R.NAIDU .**

**STUDENT NAME: ARNAV GOYAL (2021A7PS2596G)**

Student Write-up

**PS-II Project Title:** Generation of Related Questions and Designing Multi-Tier Cached System for RAG

**Short Summary of work done during PS-II :** I had worked primarily on 2 major projects - Generation of Related Questions and Cache System. The first project involved dynamically retrieving neighboring parsed units/contexts in addition to the current search results and using few shot prompting. The second project involved designing a multi-tier cache system (database and in-memory). For any incoming user question, we performed similarity match using cosine distance between embeddings, text match and filters match to determine whether the question has been previously asked to the RAG system. In case a similar question is found, we retrieve its answer as opposed to new generation from the LLM which reduced response latency by upto 7 times.

**Tool used (Development tools - H/w, S/w) :** Python, Oracle Database 23ai, PyTorch

**Objectives of the project :** The objective was to generate follow up/related questions in addition to generating the response for an incoming user question to the RAG system. The second objective was to reduce the response latency by designing a cache system for previously asked questions.

**Major Learning Outcomes :** I gained an in-depth understanding of building a RAG system starting from crawling and parsing information, storing them in a vector DB, performing semantic and text search for information retrieval and consequently using embeddings and LLMs for answer.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** My team and manager were extremely supportive throughout my internship. There were regular one on ones with the manager where you could surface any doubts or challengingness you have been facing till now.

The major expectations from an intern is come up with a system design for the project assigned to them and present to the team, consequently incorporating the feedback given in the design. After the design has been approved, you can start working on the implementation and complete the project after your changes have been pushed to production.

**Academic courses relevant to the project :** Deep Learning, Machine Learning, Operating Systems

**PS-II STATION : ORACLE, BANGALORE**

**FACULTY NAME: SRINATH R.NAIDU .**

**STUDENT NAME: ARYAN NAMBIAR (2021A7PS2619G)**

Student Write-up

**PS-II Project Title:** Conversation Chatbot (NLQ TO SQL)

**Short Summary of work done during PS-II :** I built a Natural Language to SQL (NLQ-to-SQL) chatbot at Oracle that enables users to interact with databases using plain English. I designed the system to interpret user queries, map them to the correct database schema, and dynamically generate SQL statements to retrieve relevant data. I integrated the solution with Oracle's tech stack, using tools like Oracle JET for the user interface and Oracle Database for backend processing. I implemented logic to handle ambiguous inputs, validated queries against metadata, and ensured safe execution with appropriate error handling and user feedback. This chatbot

simplifies data access for non-technical users and enhances the overall data exploration experience.

**Tool used (Development tools - H/w, S/w) :** OJET , pl/sql , java , javascript

**Objectives of the project :** Developing a chatbot that takes in natural language as prompt and checks the prompt and answers an sql query

**Major Learning Outcomes :** OJET , Langdata , Java , PL/SQL , JS

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at the company was professional, collaborative, and conducive to learning. I was integrated into a team where open communication and timely feedback were encouraged. Despite being an intern, I was given responsibilities that contributed meaningfully to ongoing projects, which helped me gain real-world exposure to the tools and processes used in industry. My daily work involved technical discussions, code reviews, and periodic sync-ups with mentors, which helped me stay aligned with project goals. The culture was inclusive and supportive, with senior developers and managers approachable for both technical guidance and career advice. Access to internal documentation and resources allowed me to independently explore and learn. From the company, I expected a platform where I could apply my academic knowledge, gain hands-on experience, and understand how large-scale software systems are developed and maintained. I also hoped to improve my collaboration and communication skills by working in a structured corporate environment. These expectations were largely met, and the internship significantly enhanced both my technical and professional skills.

**Academic courses relevant to the project :** DBMS , OOPS , AI , ML , DSA

**PS-II STATION : ORACLE, BANGALORE**

**FACULTY NAME:** SRINATH R.NAIDU .

**STUDENT NAME:** ANUJ NETHWEWALA (2021A7PS2716G)

Student Write-up

**PS-II Project Title:** Full-Stack Software Development

**Short Summary of work done during PS-II :** During my time on the project, I was assigned several short full-stack engineering tasks involving Java and React. My responsibilities included enhancing existing APIs and building new pages and views to support internal use by the SRE team. These tasks gave me hands-on experience across both backend and frontend

development. It was a highly enriching experience where I not only deepened my technical skills but also made tangible contributions to the product's internal tooling.

**Tool used (Development tools - H/w, S/w) :** Java, React, Bitbucket, Jira, Postman

**Objectives of the project :** To work on new features and resolve existing aspects in the product alongside team members, contributing to the continuous enhancement and stability of the platform.

**Major Learning Outcomes :** Java, React, Full-Stack Software development, Teamwork, Communication skills

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was great, with a strong focus on learning and growth. The team was highly supportive, always willing to guide and help when needed. There was a lot to expect from the company in terms of exposure, mentorship, and real-world experience—and they truly delivered on all fronts. It was a motivating and enriching atmosphere to work in.

**Academic courses relevant to the project :** DSA, OOPS, DBMS

**PS-II STATION : ORACLE, BANGALORE**

**FACULTY NAME:** SRINATH R.NAIDU .

**STUDENT NAME:** RAGHAV SARDA (2021A7PS2765H)

Student Write-up

**PS-II Project Title:** Real time data verification

**Short Summary of work done during PS-II :** Worked on the GoldenGate Veridata application, primarily on feature enhancements and bug fixes. Tasks consisted of backend API changes, JDBC connections, Multithreading and SQL scripting.

**Tool used (Development tools - H/w, S/w) :** Java, TypeScript, OJET html, Git, OCI

**Objectives of the project :** GoldenGate Veridata is a heterogenous real time data comparison solution that supports data verification between various sources and targets such as Oracle, MS SQL, PostgreSQL, MySQL, Sybase, Informix, DB2, Hive, Snowflake, Databricks and few others. We need to add support to other databases such as MongoDB, Apache Iceberg, Google BigQuery, Amazon Redshift. Veridata does full table comparison as of now. A fast compare to do quick



verification of data is required to be designed and implemented which will be useful during data migration usecases and exporting the Out of sync data to various formats such as excel is required to analyze Out-of-Sync data.

**Major Learning Outcomes** : Learnt about various software development techniques, working in a corporate environment and newer technologies used in leading services

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company** : Work environment was very supportive and the team was extremely helpful in all aspects, encouraged to ask questions about anything.

**Academic courses relevant to the project** : OOPS, DBMS, Software Development, Computer Networks.

**PS-II STATION : PEGASYSTEMS, HYDERABAD**

**FACULTY NAME: SAI KISHOR JANGITI .**

**STUDENT NAME: DIVYANSHI GUPTA (2023H1030091H)**

Student Write-up

**PS-II Project Title: Practical Exposure to FrontEnd Technologies**

**Short Summary of work done during PS-II** : During my internship, I had the opportunity to enhance my technical and opportunity-solving skills through hands-on experience in web development. I began by learning JavaScript, focusing on its core concepts such as variables, functions, asynchronous programming (callbacks, promises, async/await), and DOM manipulation. Building on this foundation, I progressed to React, where I gained a solid understanding of component-based architecture, hooks, state management, and JSX. Once comfortable with React, I moved on to Redux, where I learned how to manage global application state efficiently using actions, reducers, and the Redux store. This helped me understand how to build scalable and maintainable front-end applications. After acquiring these skills, I started working on real-world projects, primarily focusing on fixing accessibility and localization bugs. Through this, I learned the importance of making applications inclusive and user-friendly for all users, including those using assistive technologies. I gained experience in handling ARIA attributes, keyboard navigation, focus management, screen reader support, and ensuring proper localization practices like dynamic language rendering and RTL (right-to-left) layout support. Additionally, I improved my debugging skills significantly. I became proficient in using browser developer tools, React DevTools, and console logging to trace aspects, analyze UI behavior, and resolve complex bugs. This helped me develop a structured approach to opportunity-solving and

enhanced my overall confidence as a developer. Overall, the internship was a great learning experience, providing me with both technical knowledge and practical exposure to real-world development workflows.

**Tool used (Development tools - H/w, S/w) : Vs code**

**Objectives of the project :** To Get practical knowledge of the Front End technologies

**Major Learning Outcomes :** React, Javascript, Redux, Debugging

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** At Pegasystems, the work environment is collaborative, fast-paced, and innovation-focused. Teams work closely using agile methodologies, which means regular check-ins, iterative development, and a strong emphasis on delivering value quickly. The culture encourages open communication, continuous learning, and taking ownership of your work.

As an employee, you're expected to be proactive, adaptable, and ready to contribute ideas. Whether you're building software or supporting clients, there's a shared goal of solving complex opportunities with smart, scalable solutions. Pega values curiosity and initiative—so asking questions, experimenting, and learning from feedback are all part of the job.

In return, the company offers a supportive atmosphere with opportunities to grow, learn new technologies, and collaborate with experienced professionals. It's a place where your contributions are noticed, and your development is taken seriously.

**Academic courses relevant to the project :** Cloud, Databases

**PS-II STATION : PEGASYSTEMS, HYDERABAD**

**FACULTY NAME: SAI KISHOR JANGITI .**

**STUDENT NAME: HITANSHU NIRAV VYAS (2023H1030092P)**

Student Write-up

**PS-II Project Title:** Queue Processor: Autoscaling improvements

**Short Summary of work done during PS-II :** I have gained valuable technical insights into key areas of the platform. I worked extensively with Queue Processors, one of the core components of the Pega Infinity engine, focusing on improving the efficiency of item enqueueing and ensuring message reliability without loss. I also explored containerization and deployment, gaining an understanding of how the various components of the Pega engine are packaged and synchronized to work seamlessly in different environments. A significant part of my work involved performance optimization, particularly around queue processing, to ensure the system can scale and meet diverse business demands efficiently. These experiences have deepened my

understanding of the inner workings of the Pega engine and highlighted the importance of building robust, scalable, and fault-tolerant systems.

**Tool used (Development tools - H/w, S/w) :** JMeter, Kafka, Java, Pega Infinity, Docker

**Objectives of the project :** Performance Optimization of Queue Processors in Pega product in terms of load management, performance optimization, better handling of queued items

**Major Learning Outcomes :** complex batch scripting, using Jmeter for load testing, using kafka, writing UI tests, using Pega Infinity product (this is learnt after joining the company and is not a prerequisite)

**Details of Papers/patents : none**

**Brief Description of working environment, expectations from the company :** a. The company is very welcoming to new joiners especially interns, and the learning here is very structured and ensures you have good understanding of things before you start working.

I was given a 3 weeks to go through the KT videos of the component my team was working on and then asked to provide a reverse KT where I would explain my understanding and would be questioned on some minute details ensuring that i have thoroughly understood the component. this later ensured that i had context of lot of things during discussions, planning and also while working on the product itself. we are not expected to get results right from day 1 but rather take ownership of the tasks allotted to us, and see them through, which i have seen working as a catalyst to providing results. since there are open forums and community channels through which developers connect regarding aspects it is very easy for new joiners to reach out for help to anyone for help.

the last highlight in terms of expectations and environment would be that the team depends on you as much as you depend on them, meaning, you are included in more or less every discussion and are given the freedom to make decisions on the tasks you are driving. they are of course discussed with architects before being implemented, but it allows interns to think freely and allows them to think and optimize ideas rather than just limiting them to implementations.

**Academic courses relevant to the project :** java, oops, os (topics like multithreading, RPC), system architecture.

**PS-II STATION : PEGASYSTEMS, HYDERABAD**

**FACULTY NAME: SAI KISHOR JANGITI .**

**STUDENT NAME: SREEJISH KRISHNA (2023H1030093H)**

Student Write-up

**PS-II Project Title:** Pega App UI development: Pega Infinity & Launchpad

**Short Summary of work done during PS-II :** Developed and tested UI services for Pega Infinity and Launchpad, gaining hands-on experience in ReactJS, JavaScript, and TypeScript through practical implementation and continuous learning during the development lifecycle.

**Tool used (Development tools - H/w, S/w) :** VS code, IntelliJ, Chrome dev tools

**Objectives of the project :** To learn and implement full stack development of pega products

**Major Learning Outcomes :** How web development is implemented in both monolithic and microservices based architecture.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Pegasystems offers a collaborative and innovation-focused work environment, where teams follow agile practices and emphasize continuous learning. The culture encourages open communication, teamwork, and proactive opportunity-solving, making it a supportive space for both interns and full-time employees.

Interns are treated as integral team members, given real-world tasks that contribute to product development. Regular stand-ups, mentorship, and knowledge-sharing sessions help maintain clarity and coordination. The environment supports autonomy while providing guidance when needed.

The company expects individuals to deliver high-quality work, meet deadlines, and follow coding standards. There is a strong emphasis on taking initiative, learning continuously, and understanding the business impact of technical solutions—especially in the context of enterprise products like Pega Infinity. Pegasystems values innovation, accountability, and customer-centric thinking. Employees are encouraged to stay updated with current technologies and collaborate effectively across teams to drive meaningful results.

**Academic courses relevant to the project :** Cloud computing

**PS-II STATION : PEGASYSTEMS, HYDERABAD**

**FACULTY NAME: SAI KISHOR JANGITI .**

**STUDENT NAME: KHALASI ANIKET VIJAYKUMAR (2023H1120188P)**

Student Write-up

**PS-II Project Title:** Pega Platform Case Management

**Short Summary of work done during PS-II :** During my PS-II at Pegasystems, Hyderabad, I worked on platform case management with a focus on GenAI-powered automation tools. Initially, I explored case lifecycle basics and moved on to testing ad-hoc GenAI features across different AI models. I wrote and executed end-to-end Cucumber test cases, reported bugs, and helped route them to the correct teams. I contributed to the development of multiple GenAI tools, which I demoed to stakeholders. Apart from tool configuration, I also worked on validation logic, field-level testing, and fixing UI label-related bugs. Throughout the internship, I consistently collaborated with engineers, scrum masters, and managers for feature reviews, debugging, and testing tasks. I actively participated in Agile ceremonies like sprint planning, reviews, retrospectives, and monthly connect meetings. I also explored CSSA modules and successfully cleared my CSSA certification during this time. Overall, it was a well-rounded internship where I applied what I learned, picked up new skills, and contributed meaningfully to the team's ongoing initiatives.

**Tool used (Development tools - H/w, S/w) :** Pega Platform (Dev Studio, App Studio, Constellation), Git & Bitbucket for version control, Tracer, Clipboard, and Log tools for debugging Internal Pega AI models and Connect Rules

**Objectives of the project :** To understand and work on real-world case management features using Pega Platform. To contribute to the development, testing, and debugging of GenAI-based tools. To explore and implement AI-powered automation features in enterprise case flows. To collaborate in Agile teams and improve overall product functionality through continuous enhancements.

**Major Learning Outcomes :** Deep understanding of Pega Platform, case lifecycle design, and GenAI integration.

Practical experience in debugging and testing enterprise-level applications.

Exposure to Agile methodologies, including Sprint Planning, Reviews, and Bug Bash sessions.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Pegasystems was very collaborative and learning-focused. I had the opportunity to interact with senior developers, scrum masters, and managers regularly. Everyone was approachable and willing to help whenever I got stuck technically or needed feedback.

The team followed Agile practices very seriously, with daily sync-ups, regular sprint reviews, retrospectives, and planning sessions. I always felt involved in team discussions and was encouraged to share my ideas. Managers and mentors gave useful feedback that helped me grow both technically and personally.

One of the best things was the level of ownership I got — whether it was developing GenAI tools or creating test cases, I was treated like a full-time team member. The exposure I got to the real-

world development cycle and the opportunity to demo my work to stakeholders was beyond my expectations.

Overall, the company provided a great balance of learning, responsibility, and mentorship. It was a very supportive environment that pushed me to grow, experiment, and contribute actively.

**Academic courses relevant to the project :** Software Engineering, Software Architecture

**PS-II STATION : PEGASYSTEMS, HYDERABAD**

**FACULTY NAME: SAI KISHOR JANGITI .**

**STUDENT NAME: BHAWINI AGRAWAL (2023H1120202P)**

Student Write-up

**PS-II Project Title:** Insights and Lists

**Short Summary of work done during PS-II :** a comprehensive learning journey focused on mastering JavaScript, React, and low-code application development. The project encompasses different tasks. Firstly, the completion of the Low Code App Builder course provided a thorough understanding of building applications with minimal coding. Key learning outcomes included designing user interfaces, automating workflows, integrating data sources, and managing case types. The course emphasized the principles of low-code development, enabling rapid application deployment accessible to both technical and non-technical users. The task of advanced JavaScript concepts and asynchronous programming involved deepening knowledge of JavaScript, covering both basic and advanced concepts. Key areas of focus included callback functions, promises, async/await, and the use of various JavaScript APIs. This task also included learning React basics, such as component management, state handling, and hooks, to build dynamic web applications. The Recipe List Project was a practical application of React concepts, involving the creation of a recipe list with full CRUD (Create, Read, Update, Delete) functionalities. In the later stages, the focus shifted to enhancing Table and Chart Insights by implementing integer, decimal, percentage, and currency formatting using the JavaScript Intl library. Additional improvements included enabling date-only formatting, ensuring backward compatibility with existing insights, resolving bugs related to date part clearing in charts, and writing unit tests using Jest to ensure robustness. These tasks contributed significantly to developing technical expertise and readiness for real-world application development.

**Tool used (Development tools - H/w, S/w) :** software dev tools

**Objectives of the project :** Get a depth knowledge and hands on react js projects

**Major Learning Outcomes :** React Javascript Typescript

## **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** work environment is very positive and helpful here , mentors and seniors are always ready to help , and got a learn a lot , hands on live projects.

**Academic courses relevant to the project :** software architecture , software engineering management

**PS-II STATION : PFIZER LTD.,CHENNAI**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: MUGDHA MITTAL (2019HS461177H)**

Student Write-up

**PS-II Project Title:** Strategic Product Lifecycle management lessons through PACMP Approach

**Short Summary of work done during PS-II :** Support in data verification, extraction of data for dossier compilation, assistance in post approval change management protocol, authoring and verifying stability data, well versed with CTD Module, ICH QUALITY guideline, developed soft skills

**Tool used (Development tools - H/w, S/w) :** Regulatory information management systems, Data compilation software, MS Excel, MS word, Submission management tools, Compliance tracking, Data integration tools, Dossier management tools

**Objectives of the project :** 1. Understand concept and principles of ICH Q12. Gain a thorough knowledge on post approval change management protocols and their applications. 2. Implement a harmonized approach regarding technical and Regulatory consideration for Lifecycle management

**Major Learning Outcomes :** Post approval change management protocol approach - ICH Q12 Principles

## **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Working environment very flexible, comfortable and inclusive. Everyone in team is approachable and helpful. Managers try their best to include in technical discussions. My mentor regularly conducted bi-weekly meets to take updates. You can utilize company specific learning platforms to upskill and boost regulatory knowledge. Expectations are simple - just be sincere, consistent with work, own your responsibility, have curiosity to learn, ask questions. They look at your eagerness to contribute and continuous efforts to grow. Interaction with cross functional teams is a plus benefit.

**Academic courses relevant to the project :** Quality Assurance and Regulatory Affairs

**PS-II STATION :** PFIZER LTD.,CHENNAI

**FACULTY NAME:** BHARATHI R .

**STUDENT NAME:** ANANDITA NAIR (2023H1290009P)

Student Write-up

**PS-II Project Title:** AI integration in Drug Lifecycle Maintenance: Opportunities & Challenges

**Short Summary of work done during PS-II :** Drug lifecycle maintenance is a long drawn, exhaustive process constituting drug discovery & development, clinical studies, regulatory submissions & post-marketing pharmacovigilance of the products. Due to the labour-intensive nature of these sectors, lifecycle maintenance of drug products can prove to be expensive & time consuming. Artificial intelligence (AI) technologies such as Machine Learning (ML) are becoming pivotal to the development of various industries, including healthcare. AI/ML tools can play a central role in increasing the transparency, efficiency & accuracy of the drug lifecycle maintenance process.

**Tool used (Development tools - H/w, S/w) :** NA

**Objectives of the project :** This project aims to delve into the plausible cases of a drug lifecycle where modern AI tools can be implemented for process automation & improvement.

**Major Learning Outcomes :** Integration of AI in various sectors of pharmaceutical development and the current challenges pertaining to implementing the same. Each area must implement technology pertaining to the regulatory guidelines, and preempt such regulations where guideline.

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Great work culture, mentors and peers were always approachable, lot of accessible resources to aid in project research.

**Academic courses relevant to the project :** Yes



**PS-II STATION : PHARMAACE,PUNE**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: TAMANPREET KAUR SODHI (2023H1530212P)**

Student Write-up

**PS-II Project Title: Market Research**

**Short Summary of work done during PS-II :** It presents an in-depth market research analysis on Breyanzi (lisocabtagene maraleucel), a CD19-directed CAR-T cell therapy developed by Bristol Myers Squibb (BMS), focusing on its performance and competitive landscape in the U.S. market. Breyanzi is approved for treating relapsed/refractory Large B-cell Lymphoma (LBCL), Follicular Lymphoma (FL), Chronic Lymphocytic Leukemia (CLL), and Mantle Cell Lymphoma (MCL) after two or more prior therapies. The study highlights Breyanzi's mechanism of action, epidemiological data, revenue trends, and line of treatment. It shows Breyanzi's strong market uptake with revenue increasing from \$87M in 2021 to \$747M in 2024, primarily driven by the U.S. market. The therapy competes with other CAR-T products like Yescarta and Kymriah, bispecific antibodies (e.g., Epcoritamab, Glofitamab), and ADCs (e.g., Polatuzumab vedotin), each offering distinct clinical and logistical benefits. A key section analyzes the competitive pipeline, identifying emerging therapies that may challenge Breyanzi's position, particularly in CLL and FL, through ease of administration or outpatient suitability. Nonetheless, Breyanzi's long-term remission potential and strong safety-efficacy profile position it favorably. It can be concluded as Breyanzi's vital role in addressing unmet needs in relapsed/refractory B-cell malignancies, conducting secondary research, competitive analysis, and epidemiological modeling—enhancing their understanding of CAR-T therapies and the oncology landscape. The report demonstrates how strategic positioning and continued clinical development will determine Breyanzi's sustained market leadership.

**Tool used (Development tools - H/w, S/w) :** clinicaltrials.gov, excel, powerpoint, SEER

**Objectives of the project :** To do research on Breyanzi Overview & its Mechanism of Action, its competitive landscape, revenue trend and pipeline overview

**Major Learning Outcomes :** Strengthened understanding of CAR-T cell therapy development, mechanism, and clinical utility.

Developed skills in epidemiological analysis, helping estimate target populations for market sizing.

Enhanced skills in PowerPoint presentation design.

**Details of Papers/patents :** [1] Bristol Myers Squibb. (2024). Breyanzi® (lisocabtagene maraleucel) prescribing information. Retrieved from [https://packageinserts.bms.com/pi/pi\\_breyanzi.pdf](https://packageinserts.bms.com/pi/pi_breyanzi.pdf)

[2] Breyanzi. (2024). Official site of Breyanzi®. Retrieved from <https://www.breyanzi.com/> U.S.

[2]

**Brief Description of working environment, expectations from the company :** The working environment was good with trainings given to me by my seniors, the team is very helpful and supportive. Overall, since the team was good it made it a good experience. Got to learn a lot of new things from exploring the formulas in excel to updating reports in PowerPoint, doing some secondary research and a lot more.

**Academic courses relevant to the project :** Clinical Research, Immunology, Advanced Pharmacology

**PS-II STATION : PHARMSIGHT RESEARCH AND ANALYTICS PVT. LTD. ,FARIDABAD**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: AASHITA SAXENA . (2021A5PS1228P)**

Student Write-up

**PS-II Project Title:** Competitive Intelligence and Market Analysis

**Short Summary of work done during PS-II :** I learned how to collect information of the market and all the companies involved in drug market, learned how to collect news and draft it regularly for a streamline communication between company and clients, searched the fda website to learn about new developments in the market and analyze it.

**Tool used (Development tools - H/w, S/w) :** Power BI

**Objectives of the project :** Market research and analysis

**Major Learning Outcomes :** How to do market research

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** It was a cordial environment with my workers helping me at any moment of time when required.

**Academic courses relevant to the project :** Principle of management, Pharmacoeconomics, pharmacology.

**PS-II STATION : PHARMSIGHT RESEARCH AND ANALYTICS PVT. LTD. ,FARIDABAD**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: SHUBHASHREE DASH . (2021A5PS1620P)**

Student Write-up

**PS-II Project Title: Competitive Intelligence & Market Analysis**

**Short Summary of work done during PS-II :** During my PS-II, I have contributed to multiple strategic initiatives aimed at enhancing the organization's market awareness and decision-making capabilities. My primary responsibilities included: Competitive Knowledge Base Development: I actively supported the creation and organization of a structured competitive knowledge base by compiling, updating, and categorizing key information about industry players, market events, pipeline developments, and strategic moves. This helped streamline access to critical insights for internal stakeholders. Newsletter Drafting: I was involved in curating and drafting weekly newsletters that highlighted important industry updates, competitive movements, regulatory milestones, and scientific advancements. These newsletters were circulated to cross-functional teams, enabling quick, high-level awareness of external developments. Monthly Landscape Analysis: I assisted in preparing detailed monthly landscape reports focusing on specific therapeutic areas. These reports included competitor benchmarking, clinical trial tracking, and key insights from market news, aiding leadership in strategic planning.

**Tool used (Development tools - H/w, S/w) :** MS Office

**Objectives of the project :** To perform an analysis of competitor companies and learn their strategy.

**Major Learning Outcomes :** During my internship with the Competitive Intelligence team, I gained valuable insights into strategic thinking, market analysis, and data-driven decision-making. I also learned how to monitor competitors, interpret industry trends, and present findings.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** I am a member of the Competitive Intelligence team. My experience working in this team has been engaging, exciting, collaborative, and stimulating with an atmosphere of respect and cooperation. The culture encourages open exchange of communication, sharing of knowledge, and development and learning. This team consists of supportive, engaged, friendly, and driven professionals that make it easy and fun to collaborate.

The company culture encourages positivity and values both integrity and ingenuity. The company has a commitment to quality, and expects its people to take responsibility for their insights that could help the company make strategic and profitable decisions. The company tries to adopt a

collegial atmosphere, however there are times during a frantic environment that extended hours are required for the completion of objectives and deadlines.

The firm expects attention to detail, analysis, and opportunity solving leading to actionable insights. Furthermore, you needs to capture and understand market trends, competitor developments, and the overall direction of the industry. Good reporting in written and verbal structure with actionable insights in a timely manner are also expectations.

Overall, it is a great environment for people engaged in strategic analysis and dedicated to go the extra mile.

**Academic courses relevant to the project :** Project Management

**PS-II STATION :** PHONEPE PVT.LTD., ,BENGALURU

**FACULTY NAME:** SUGATA GHOSAL .

**STUDENT NAME:** ARJOO KUMARI . (2020B3A70770P)

Student Write-up

**PS-II Project Title:** CI for Platform Repo

**Short Summary of work done during PS-II :** Created all the pipelines for monorepo.

**Tool used (Development tools - H/w, S/w) :** Python, Kotlin, Java, Swift, Ruby, Bash

**Objectives of the project :** Work with platform team on the design and implementation of CI pipelines.

**Major Learning Outcomes :** Worked on a variety of tech stack.

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Focus on learning and take ownership of your work. Supportive team.

**Academic courses relevant to the project :** Yes

**PS-II STATION :** PHONEPE PVT.LTD., ,BENGALURU

**FACULTY NAME:** SUGATA GHOSAL .

**STUDENT NAME:** PRATIK LAHIRI (2020B3A71165G)

Student Write-up

## **PS-II Project Title: Contributions to P2P Android**

**Short Summary of work done during PS-II :** During my PS-II, I executed a substantial UI framework migration from native Android Views to Jetpack Compose for several P2P screens. This involved refactoring legacy layouts into composable functions and integrating Paging 3 for optimized asynchronous list loading, such as contact or transaction history views. I fully leveraged Kotlin Coroutines and Flow for reactive data streams and concurrent operations, managing UI state via StateFlow/SharedFlow. Concurrently, I completed a full redesign of the dialer screen, enhancing its visual appeal and streamlining the user flow for initiating P2P payments with custom Compose UI elements. I also developed an experimental server-side UI module, enabling dynamic rendering of UI components from server-provided configurations—a critical step towards A/B testing and agile feature rollouts. Crucially, I implemented and integrated a robust receiver-side kill-switch. This system is designed to programmatically disable payment initiation flows upon detection of an active receiver bank outage, preventing unfulfillable transactions and fortifying the application's operational resilience.

**Tool used (Development tools - H/w, S/w) :** Android Studio

**Objectives of the project :** The project aimed to modernize the application's foundational UI framework by migrating to Jetpack Compose, enhancing declarative UI composition, and optimizing the reactive data pipeline through the adoption of Kotlin Coroutines and Flow for state management (e.g., StateFlow/SharedFlow). This also involved upgrading data presentation layers from Paging 2 to Paging 3. A parallel objective was to significantly enhance user experience through a comprehensive redesign of the dialer screen, improving interaction fidelity for P2P recipient selection. Furthermore, the initiative sought to introduce new server-driven UI (SDUI) capabilities as an experimental feature, enabling agile deployment of UI updates and remote A/B testing. Finally, a critical objective was to implement a robust receiver-side kill-switch, specifically engineered to activate upon detection of receiver bank downtime, thereby preserving transaction integrity and user experience during external service disruptions.

**Major Learning Outcomes :** Android Development, Kotlin, Jetpack Compose, Gradle, Hilt, Room DB, Retrofit, OkHTTP

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Dynamic and agile work environment, with a strong emphasis on fast shipping of code to quickly deliver impact in the fintech space. Focus is on ownership of code, empowering engineers to take end-to-end responsibility for their features. Offers independence and trust over your work as long as you deliver on time.

The expectation is to learn as much as possible, continuously expanding your skill set in a dynamic environment. Encouraged to delve deep, getting to the root cause of aspects before proposing solutions, ensuring robust and lasting fixes. The culture values thoroughness, expecting you to

present all possible solutions when tackling a opportunity, fostering comprehensive and innovative thinking.

**Academic courses relevant to the project :** Data Structures and Algorithms, Object Oriented Programming, Database Management Systems, Operating Systems, Computer Networks.

**PS-II STATION : PIEDS BITS PILANI**

**FACULTY NAME:** ANJANI SRIKANTH KOKA .

**STUDENT NAME:** SHRUTI HALWAI . (2019A7PS0003P)

Student Write-up

**PS-II Project Title:** Building an RAG Chatbot for BITSAA

**Short Summary of work done during PS-II :** First, we scraped BITSAA official website into an HTML excel doc; then we wrote out code for Chatbot creation, afterwards we created the UI for Chatbot user interaction and finally deployed it

**Tool used (Development tools - H/w, S/w) :** VSCode

**Objectives of the project :** To make a deployable Chatbot which can answer user questions swiftly and accurately

**Major Learning Outcomes :** I learned how to scrap data from a source to use them as a database for a Chatbot. I also learned how to write a Chatbot code step by step using python and then deploy it for the use.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment was very balanced and mentors were friendly and helpful.

**Academic courses relevant to the project :** CP, OOP

**PS-II STATION : PIEDS BITS PILANI**

**FACULTY NAME:** ANJANI SRIKANTH KOKA .

**STUDENT NAME:** MADHAV GARG . (2020B1AA1890P)

Student Write-up

**PS-II Project Title:** Founders Office at Simplismart

**Short Summary of work done during PS-II :** Have aided the company in marketing and sales function, helping explore and evaluate different channels, have aided them with design for marketing materials/sales deck/ official documents and such as and when needed.

**Tool used (Development tools - H/w, S/w) :** Figma, adobe illustrator, adobe premiere pro, adobe photoshop

**Objectives of the project :** To aid the company's growth function in whatever way needed and handle all the design related marketing tasks alongside

**Major Learning Outcomes :** Learnt a lot about the startup culture, how different it is from traditional business and how marketing and growth function takes place.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** At Simplismart, we work in a friendly startup environment where everyone takes ownership of their tasks. The work hours are flexible, and the seniors are very supportive and always ready to help. It's a place where you can learn a lot, grow fast, and really make an impact with your ideas and efforts.

**Academic courses relevant to the project :** Organisation Psychology helped a bit - but mostly unrelated

**PS-II STATION : PIEDS BITS PILANI**

**FACULTY NAME:** ANJANI SRIKANTH KOKA .

**STUDENT NAME:** PRIYANKA SATHEESAN NAMBOODRI (2020B1AB1901P)

Student Write-up

**PS-II Project Title:** Meerahi VR- Virtual Reality for Mental Health Care

**Short Summary of work done during PS-II :** As a Social Media, Business Development, and Go- To-Market (GTM) employee at Meerahi VR, my role has been both creative and strategic. I manage our social media presence, crafting engaging content that highlights our mission, product features, and user stories to build an active and supportive online community. On the business development side, I identify and reach out to potential partners, research collaboration opportunities, and help drive conversations with academic institutions and industry leaders. For our GTM strategy, I assist in market research, competitor analysis, and the development of targeted campaigns to position Meerahi VR effectively in the mental health tech space. I also gather and analyze user feedback from our pilots, using these insights to refine our messaging

and outreach. My work bridges communication between our product, research, and external partners, helping to grow our brand and expand our impact in the mental health sector.

**Tool used (Development tools - H/w, S/w) :** MetaQuest 3, Unity, Figma, Canva, MS Office

**Objectives of the project :** To manage business KPIs and devise a future ready operating model to help the company expand rapidly in the upcoming years.

**Major Learning Outcomes :** Virtual reality in mental health

**Details of Papers/patents :** Gameified avatar based therapy - A novel approach to VR, mental health interventions for young Indian adults.

**Brief Description of working environment, expectations from the company :** At Meerahi VR, the work environment is collaborative, innovative, and supportive. I feel encouraged to share ideas and take initiative, knowing my contributions are valued. The team is diverse and open-minded, blending expertise from tech, psychology, and business. There's a healthy balance of independence and teamwork, with regular check-ins and brainstorming sessions. Flexibility in work hours and location helps me stay productive and creative. Overall, it's a positive space where learning and growth are truly encouraged.

**Academic courses relevant to the project :** Yes

**PS-II STATION : PIEDS BITS PILANI**

**FACULTY NAME: ANJANI SRIKANTH KOKA .**

**STUDENT NAME: MAYANK KUMAR SINGH . (2020B5A21462P)**

Student Write-up

**PS-II Project Title:** Management of Restaurants using CCTV

**Short Summary of work done during PS-II :** I had joined ANITUM as a cofounder where my PS station resides. The work done by me was in a vast space of things, both business related and technology related. In technology I have worked extensively in training computer vision models and have done fine tuning on them. Apart from that I have also made pipelines to stitch different modules of a code. On the other hand, in business side, I have learned how to maintain relations with customers and investors. I have also worked on market research a little bit, but not my department.

**Tool used (Development tools - H/w, S/w) :** Python, Bash Scripts, Claude, etc

**Objectives of the project :** To create a system which provides us key metrics about a restaurant.



**Major Learning Outcomes** : Understood how to run a company

**Details of Papers/patents** : No patents as of now, we are in process to file a patent for high computation motion detection.

**Brief Description of working environment, expectations from the company** : The working environment was good at IITM.

**Academic courses relevant to the project** : Yes

**PS-II STATION : PIEDS BITS PILANI**

**FACULTY NAME: ANJANI SRIKANTH KOKA .**

**STUDENT NAME: GURUPAM DIXIT . (2020B5A40627P)**

Student Write-up

**PS-II Project Title:** Product Design and Management at Simplismart

**Short Summary of work done during PS-II** : I worked on designing key interfaces for the AI/ML core platform. My main responsibilities included designing modules for benchmarking ML models, adding observability dashboards using Grafana-style metrics, and integrating support for different model types like SDXL, LLaMA, and Whisper. I also led the redesign of the homepage and improved mobile responsiveness. I closely collaborated with engineering to ensure that the front-end design aligned with product logic and user needs. Additionally, I contributed to features like dark mode, tool configuration UI, and dataset upload workflows.

**Tool used (Development tools - H/w, S/w)** : Figma, Illustrator, After Effects, Grafana, Notion, Google Sheets, Slack

**Objectives of the project** : To design and improve user interfaces and workflows for benchmarking, monitoring, and deploying AI/ML models within an enterprise infrastructure platform

**Major Learning Outcomes** : Deep understanding of enterprise AI workflows, UI/UX design for technical users, Cross-functional collaboration with engineering and product teams

**Details of Papers/patents** : N/A

**Brief Description of working environment, expectations from the company** : The working environment was fast-paced and collaborative, I was expected to take full ownership of the design process, from ideation to implementation. Despite being an intern, I was treated as a core

contributor and involved in all design/product discussions. The team provided mentorship while encouraging autonomy.

**Academic courses relevant to the project :** Although I haven't taken any specific courses directly related to my project, the academic environment and coursework at BITS helped shape my opportunity-solving and design thinking approach. Courses such as Human-Computer Interaction, Artificial Intelligence.

**PS-II STATION : PIEDS BITS PILANI**

**FACULTY NAME: ANJANI SRIKANTH KOKA .**

**STUDENT NAME: MIHIKA PARAG DESHPANDE . (2021A7PS2435P)**

Student Write-up

**PS-II Project Title:** Virtual Reality for Mental Healthcare

**Short Summary of work done during PS-II :** My work during PS 2 combined both product development and research at Meerahi VR. The process began with designing and building immersive VR environments focused on relaxation and meditation, which received positive feedback from early users. To inform our research direction, I conducted a comprehensive literature review to identify gaps in how VR is currently used for mental health, particularly for stress and anxiety. The methodology for the paper involved integrating user feedback from ongoing pilot trials, collaborating with leading psychologists for expert insights, and analyzing preliminary outcomes from our VR modules. We then formulated research questions around extending VR interventions to deeper anxiety reduction through exposure therapy, the impact of avatars (Proteus effect), and the role of gamification and standardized metrics in therapy. This mixed-methods approach—combining product iteration, user testing, expert consultation, and literature review—helped shape both the paper and our ongoing research roadmap.

**Tool used (Development tools - H/w, S/w) :** Unity, Figma, Excel, Latex

**Objectives of the project :** Business Development and Growth of Meerahi VR

**Major Learning Outcomes :** Entrepreneurship, Product engineering, Product Management

**Details of Papers/patents :** Research paper submitted to conferences: “ Gamified Avatar-Based Therapy: A Novel Approach to VR Mental Health Interventions for Young Indian Adults”

**Brief Description of working environment, expectations from the company :** At Meerahi VR, our working environment is dynamic, collaborative, and deeply mission-driven. As the founder, I've prioritized creating a culture where innovation and empathy go hand in hand. Our team is a

diverse mix of engineers, designers, psychologists, and researchers, all passionate about harnessing technology to improve mental health care. We operate in a flexible, hybrid setup, encouraging both in-person brainstorming and remote deep work to accommodate different working styles and foster creativity.

From the company, I expect a shared commitment to our mission: making mental health support more accessible, effective, and engaging. I look for curiosity, initiative, and a growth mindset in every team member. We celebrate both big wins and small learnings, and support each other through challenges. Whether you're developing code, designing user flows, or running pilot trials, your work directly impacts real users and the future of digital mental health.

**Academic courses relevant to the project :** Computer Graphics, DSA, BAV

**PS-II STATION : PIEDS, BENGALURU**

**FACULTY NAME: ANJANI SRIKANTH KOKA .**

**STUDENT NAME: THAREJA DHRITI (2021A8PS1659G)**

Student Write-up

**PS-II Project Title:** Operations and Outreach at BITS Pilani Bangalore Center

**Short Summary of work done during PS-II :** My responsibilities included database management, event planning and execution, promotional content creation, incubator research, outreach to early-stage founders, and developing engaging content. I was deeply involved in planning and hosting events such as the AI event and Semiconductor event, developed comprehensive databases, and contributed to several tasks for the initial development of the upcoming incubator space.

**Tool used (Development tools - H/w, S/w) :** Canva, Google Docs, Google Sheets, Figma

**Objectives of the project :** Assist with the growth and operations at the BITS Pilani Bangalore Center, coordinating events, industry connects, and alumni visits.

**Major Learning Outcomes :** Research, design thinking, project management, communication, event management

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** I was directly mentored by Mridula ma'am and Pramod sir. Work was consistently checked and feedback was given timely.

**Academic courses relevant to the project :** Yes

**PS-II STATION : PIRAMAL GROUP - TECH, BENGALURU**

**FACULTY NAME: ANKUR PACHAURI**

**STUDENT NAME: KONKIMALLA VENKATA SAI VARUN (2020B2A42393H)**

Student Write-up

**PS-II Project Title: Application Development**

**Short Summary of work done during PS-II :** During my PS-II at Piramal Finance, I developed the Admin Central application (also known as RDM Data Lookup System) to streamline organizational data management. The project replaced an inefficient process that relied on manually created MongoDB scripts requiring multiple approvals and causing week-long delays. I built a comprehensive web application with a React/Next.js/TypeScript frontend and secure backend services. The system enables seamless CRUD operations across multiple databases including Pincode, Car Management, and Branch Management databases. Key features implemented include search and filtering capabilities, pagination for handling large datasets, bulk data upload/download functionality, and robust data validation mechanisms. I integrated Role-Based Access Control (RBAC) to restrict access to sensitive functionalities based on user roles, and implemented Relationship-Based Access Control (ReBAC) across backend services to ensure data privacy. Additionally, I developed a Lead Rejection Email Status Tracking System that monitors email delivery status and provides automated internal reporting. Performance optimization was a priority, with techniques including MongoDB indexing that reduced document fetches from 446 to 82 and execution time from 3ms to 1ms. Security measures implemented include token-based authentication, data encryption using CryptoJS, and a middleware security proxy. The project significantly improved operational efficiency by eliminating approval bottlenecks and providing a user-friendly interface for data management. Future enhancements include transitioning to a backend-driven frontend architecture to enable low-code development for easier addition of new database masters.

**Tool used (Development tools - H/w, S/w) :** Java Springboot, React, Next.js, TypeScript, Express.js, MongoDB, Postman, Jenkins, Grafana, Rancher

**Objectives of the project :** Developing a web-based application that enables seamless CRUD (Create, Read, Update, Delete) operations across multiple organizational databases, replacing an inefficient process that previously required manual MongoDB scripts and multiple approval levels. The system features an intuitive React-based frontend with TypeScript for type safety, a secure backend with role-based access controls, and optimized database interactions that significantly improved operational efficiency and responsiveness.

**Major Learning Outcomes :** Modern web architecture implementation using micro-frontends

Building responsive and user-friendly interfaces with React, Next.js, and TypeScript  
Implementing secure backend solutions with Express.js and security proxies Database  
management with optimized.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Piramal Finance was energetic and supportive, with a real sense of teamwork and healthy competition. I always felt comfortable reaching out to seniors and managers—they were approachable, encouraging, and genuinely invested in helping me learn and grow. The company set clear expectations: we were expected to meet deadlines, follow reliable and clean coding practices, and be consistent with our attendance, both in the office and in meetings. There was a strong focus on not just getting the work done, but doing it well—writing maintainable code, documenting our progress, and making sure everything was up to standard.

**Academic courses relevant to the project :** FDSA, OOPS, OS, DBMS, Software Engineering

**PS-II STATION : PIRAMAL GROUP - TECH, BENGALURU**

**FACULTY NAME:** ANKUR PACHAURI

**STUDENT NAME:** ARKODIPTO DUTTA (2020B4A72177H)

Student Write-up

**PS-II Project Title:** API Migration

**Short Summary of work done during PS-II :** I migrated various API's from Apigee to Nginx during my PS-2. The existing API's were using Apigee which is Google Cloud's API Management platform. Migrating them to the open source Nginx resulted in cost effectiveness of the company.

**Tool used (Development tools - H/w, S/w) :** GitHub, IntelliJ, Jira, Atlassian, Jenkins, Kibana, Postman, AWS

**Objectives of the project :** Migrating API's from Apigee to Nginx

**Major Learning Outcomes :** Learnt about Object oriented programming in Java, how API's function. Got a much needed taste of the corporate experience.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working conditions are pleasant, with regular team meetings. The company expects you to be thorough with your CS fundamentals, specially subjects like OOPS/AI if you're working in the tech division.

**Academic courses relevant to the project :** OOPS

**PS-II STATION : PIRAMAL GROUP - TECH, BENGALURU**

**FACULTY NAME: ANKUR PACHAURI**

**STUDENT NAME: AKSHITI GARG (2021A3PS2499H)**

Student Write-up

**PS-II Project Title:** Agreement renewal for all partners and fbss

**Short Summary of work done during PS-II :** During my six-month PS-II at Piramal Group in Bangalore, I contributed to the Embedded Finance Technology team, working on partner agreement renewal automation and frontend modules for onboarding. On the backend, I developed scalable APIs using Spring Boot and integrated MongoDB for data handling. These APIs facilitated the retrieval, validation, and renewal of partner agreements. On the frontend, I created role-based UIs for partners and sales managers using React.js. I also implemented a custom metrics logging solution to improve system observability. Throughout my internship, I actively participated in sprint planning, daily standups, QA testing, and production deployments. I worked closely with mentors, product managers, and QA teams to ensure high delivery standards. My work helped reduce manual tasks, accelerate UAT delivery, and improve debugging transparency.

**Tool used (Development tools - H/w, S/w) :** IntelliJ IDEA, VS Code, MongoDB Compass, Postman, GitHub, Cline

**Objectives of the project :** To enhance the scalability and maintainability of the Partner Management Platform by developing microservices, automating agreement renewal workflows, and improving observability with custom logging metrics. The goal was to reduce manual dependencies, optimize user experience, and ensure high system reliability for embedded finance integrations.

**Major Learning Outcomes :** Hands-on experience in full-stack development using Spring Boot and React.js

Implementing backend APIs with business logic and validations  
Setting up logging and monitoring

Agile development practices and working within a cross-functional tech team.

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment at Piramal was professional, collaborative, and growth-oriented. The Embedded Finance Technology team maintained a healthy balance of mentorship and autonomy. Expectations included timely delivery of sprint tasks, active participation in team discussions, and proactive debugging of aspects. Developers were encouraged to write clean, testable code and follow best practices in documentation and version control. Regular reviews, UAT feedback cycles, and QA validation were integral parts of the process.

**Academic courses relevant to the project :** Database Systems (BITS F363)

Object Oriented Programming (CS F211)

Computer Programming (CS F111)

**PS-II STATION : PIRAMAL GROUP - TECH, BENGALURU**

**FACULTY NAME: ANKUR PACHAURI**

**STUDENT NAME: ARINJAY SHARMA (2021A8PS2845G)**

Student Write-up

**PS-II Project Title:** Generative AI chatbot for policy debugging

**Short Summary of work done during PS-II :** The purpose of the chatbot is to make it easier for business users to understand and debug policy aspects such as minor bugs in existing configurations which would otherwise require developer intervention . The chatbot is developed using a FastAPI backend that exposes REST APIs , implements authentication, and rate limiting to ensure secure and efficient access. When a user submits a query the chatbot retrieves lead data and policy configurations from MongoDB, processes them, and generates structured input for the LLM models . The model returns a step-by-step explanation of how values were populated and where errors occurred. Chat sessions were also logged for monitoring and feedback. Other than this also worked on other tickets and other tasks such as setting up cron jobs/scripts etc.

**Tool used (Development tools - H/w, S/w) :** Java , Springboot , Git, Docker , Jenykins

**Objectives of the project :** Develop a chatbot to help business users debug complex policy flows in code with the help of generative AI to help reduce production aspects and reduce loan disbursal time

**Major Learning Outcomes :** Chatbot Frameworks , Agentic Frameworks like Langchain , REST APIs , Software development life cycle

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was mostly relaxed depending on the workload with the expectation being to take complete ownership of the features/tickets we were working on from product team expectations of how it should perform to ensuring end to end test case scenarios were covered.

**Academic courses relevant to the project :** Object Oriented Programming, DBMS

**PS-II STATION : PIRAMAL PHARMA LIMITED ,MUMBAI**

**FACULTY NAME: ANKUR PACHAURI**

**STUDENT NAME: VEDANT GANGRADE (2020B4A81571G)**

Student Write-up

**PS-II Project Title:** Business Analytics

**Short Summary of work done during PS-II :** My internship experience at Piramal Pharma has been invaluable in building both my technical skills and business acumen. Through projects focused on data automation, sales analysis, and inventory optimization, I developed a strong foundation in data extraction, transformation, and insight generation. Leveraging Python to automate processes not only improved efficiency but also enhanced the accuracy and reliability of key business metrics. Additionally, working with cross-functional teams allowed me to understand the practical challenges faced by stakeholders and how data-driven insights can directly influence decision-making. These experiences have equipped me with the skills to analyze complex data, identify patterns, and provide actionable solutions all of which are crucial for driving business growth. Moving forward, I aim to build on this foundation, applying these learnings to solve larger-scale opportunities and contribute effectively to data-driven decision-making in future roles.

**Tool used (Development tools - H/w, S/w) :** Pandas, Excel, Python

**Objectives of the project :** Supporting the Supply Chain, Finance, E-commerce, Sales Development and Modern Trade teams with actionable insights through analytical reporting.

**Major Learning Outcomes :** Stakeholder Management, Automated report generation, Pandas, Excel

**Details of Papers/patents : NA**



**Brief Description of working environment, expectations from the company :** Mentors are helpful in terms of guiding, learning curve is very sharp and you get to take ownership of your work in front of stakeholders.

**Academic courses relevant to the project :** Data Science Courses

**PS-II STATION : PIXIS - TECH, BENGALURU**

**FACULTY NAME:** AKANKSHA BHARADWAJ .

**STUDENT NAME:** DHRUV KHURANA (2023H1120185P)

Student Write-up

**PS-II Project Title:** Backend Development in Prism Core

**Short Summary of work done during PS-II :** I worked on the backend development of Prism Core, an AI-powered AdTech platform. My primary focus was enhancing the system's backend infrastructure to support new features and improve existing functionalities. This involved performing schema migrations using PostgreSQL and Sequelize ORM based on the Performance Monitoring feature's high-level design. I was responsible for raising pull requests, refactoring code as per reviews, and ensuring proper testing in the local environment. I developed and tested several RESTful APIs, including a new endpoint to address attribute-filter aspects in the Smart Catalog. Additionally, I implemented a webhook handler to automate the synchronization of product feeds upon data source creation—previously a manual task—thus improving real-time data consistency and system responsiveness. Throughout the internship, I encountered and overcame challenges such as understanding a large, complex backend codebase, debugging asynchronous flows, and working within an event-driven architecture. These experiences helped solidify my knowledge of backend technologies including Node.js, Express.js, WebSockets, and industry-standard practices like code reviews and version control. Overall, this internship provided me with hands-on exposure to scalable backend system development, improved my debugging and opportunity-solving skills, and deepened my understanding of modern backend practices in a real-world AdTech environment.

**Tool used (Development tools - H/w, S/w) :** Node.js, Express.js, JavaScript, PostgreSQL, Sequelize ORM, Git, Postman, VS Code

**Objectives of the project :** Enhancing Prism Core backend by implementing APIs, schema migrations, and webhook-based automation using backend web technologies.

**Major Learning Outcomes :** Gained practical experience in backend development using Node.js and PostgreSQL, implemented and tested RESTful APIs, worked with Sequelize ORM for database migrations, and understood event-driven systems through webhooks.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The work environment was professional and collaborative. The team maintained a strong focus on innovation and code quality, fostering a culture of learning and mentorship. Expectations from the company included timely delivery of assigned tasks and adherence to coding standards.

**Academic courses relevant to the project :** Object-Oriented Analysis & Design, Software Architectures

**PS-II STATION : PORTER - BUSINESS INTERNSHIP. ,BENGALURU**

**FACULTY NAME: MONALI TUSHAR MAVANI .**

**STUDENT NAME: PATHA AKHIL (2020B4A41014H)**

Student Write-up

**PS-II Project Title:** Optimizing Logistics Operations and Enhancing Customer Experience through Data-Driven Insights

**Short Summary of work done during PS-II :** I conducted structured interviews with over 300 users to identify the reasons behind booking drop-offs and cancellations. I also studied NPS ratings and categorized feedback based on service quality, trust, and reliability factors. In addition, I benchmarked pricing against competitors like NoBroker to identify gaps and suggest strategy improvements. A critical part of my project involved analyzing social media escalations related to delayed deliveries. I collaborated with the support team to suggest enhancements in Standard Operating Procedures to reduce response times and improve resolution efficiency.

**Tool used (Development tools - H/w, S/w) :** Google Sheets, Google Forms, Snowflake - SQL, Notion

**Objectives of the project :** Improve customer experience by addressing service gaps and enhancing support processes.

**Major Learning Outcomes :** 1. Gained deep insights into customer behavior and expectations in the house-shifting industry.

2. Understood pricing strategies through competitor benchmarking.

3. Improved communication, stakeholder collaboration, and root cause analysis skills.

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** My mentor and the broader team were always approachable, fostering an open-door policy that encouraged constant learning and knowledge sharing.

**Academic courses relevant to the project :** Yes

**PS-II STATION : POSIDEX TECHNOLOGIES P LTD, HYDERABAD**

**FACULTY NAME:** SAI KISHOR JANGITI .

**STUDENT NAME:** KARTIK CHITTOOR (2020B4A81617H)

Student Write-up

**PS-II Project Title:** Address Verification & AI Driven Entity Verification

**Short Summary of work done during PS-II :** Address categorization has become increasingly crucial in applications such as e commerce, logistics, governance, and location-based services. However, real-world address data often suffers from inconsistencies, missing details, unstructured formats, and incorrect mappings, which lead to inefficiencies in processing and verification. To address these challenges, this project aims to refine address validation techniques using machine learning models and structured preprocessing methodologies. Additionally, a parallel initiative is focused on optimizing Know Your Customer (KYC) verification processes through the integration of Generative AI (GenAI), enhancing decision-making efficiency and reducing human intervention.

**Tool used (Development tools - H/w, S/w) :** MySQL, AWS, SageMaker, Kaggle, Python, GenAI

**Objectives of the project :** Address Verification & AI Driven Entity Verification

**Major Learning Outcomes :** Learnt how to leverage gen ai models, vlms, and do proper data consolidation for huge projects.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Very pleasant working environment with really helpful mentors that will push you to learn new things, be there whenever you want help and give great insights.

**Academic courses relevant to the project :** AI, ML, PnS, DBMS

**PS-II STATION : POSTMAN ,BENGALURU**

**FACULTY NAME: SHREYAS SURESH RAO .**

**STUDENT NAME: UDIT GUPTA (2020B4A72368H)**

Student Write-up

**PS-II Project Title:** Postbot - Intellisense

**Short Summary of work done during PS-II :** Powering suggestions in the postman app for users that are collated from different sources like user history, workspaces and smart search (AI driven search),

**Tool used (Development tools - H/w, S/w) :** JavaScript (frontend and backend both), AI agents (worked with various LLM models to fine tune the search algo)

**Objectives of the project :** AI driven suggestion for users in the postman app

**Major Learning Outcomes :** complete end to end full-stack project driven by AI agents

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** People there are amazing - helpful and smart.2020b5aa1569g

**Academic courses relevant to the project :** DSA, computer network

**PS-II STATION : PRASHANU HOSPITAL, PALGHAR, MAHARASHTRA ,PALGHAR**

**FACULTY NAME: BHARATHI R .**

**STUDENT NAME: RUTVA LINGAPURI . (2020B5A81455P)**

Student Write-up

**PS-II Project Title:** Development of Electronic Health Record (EHR) and Patient Portal

**Short Summary of work done during PS-II :** Developed a role-based Electronic Health Record (EHR) system and patient portal for Prashanu Hospital. The system enabled staff to manage patient records and allowed patients to securely access their medical history. Work involved full- stack development, implementing user authentication, and ensuring smooth coordination between medical staff through centralized, digital record-keeping.

**Tool used (Development tools - H/w, S/w) :** React.js, Electron Forge, Node.js, Express.js, PostgreSQL

**Objectives of the project :** Create the dashboard for both of these systems in-house to cater to Prashanu Hospital's specific requirements.

**Major Learning Outcomes :** Database design, API development, Industry relevant technologies

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment was collaborative and self-driven, with flexibility in timelines but clear expectations for delivering a functional, user-friendly EHR system. The company expected efficient role-based access control, secure patient data handling, and smooth integration of front-end and back-end systems to streamline hospital operations and enhance patient experience.

**Academic courses relevant to the project :** DBMS, DSA

**PS-II STATION : PRATT & WHITNEY ,BENGALURU**

**FACULTY NAME:** SRINIVAS KOTA .

**STUDENT NAME:** NINAAD SACHIN KOTASTHANE (2021A4PS2545G)

Student Write-up

**PS-II Project Title:** JETSMART: Jet Engine Testbed for Smart Monitoring and Advanced Real-time Telemetry

**Short Summary of work done during PS-II :** This was the first time the IDCC department received interns so there was no structured internship program/plan. Interns were asked to shadow the current employees to understand the nature of the work. If you want to do some work, you needed to ask for it, nothing would be handed to you. I switched to the Industry 4.0 tower out of interest. Here I learnt about industrial Supervisory Control and Data Acquisition system called Ignition. did the 3 month course. We were exposed to the towers current projects and future activities. Since we weren't billable employees we couldn't directly contribute so we were asked to make a team management application on the (MSSQL, Express, Angular, Node) stack. We learnt about the company's cybersecurity and data control policy through the hoops of approvals and raising tickets we had to go through in order to make the project in the company environment. I took up another project more related to my interest in OT/IT convergence and industrial demanding ware which I would submit in my final project report.

**Tool used (Development tools - H/w, S/w) :** Ignition SCADA, MSSQL(RDBMS), OPTP22 PAC, Microsoft Excel

**Objectives of the project :** Demonstrate seamless integration between Operational Technology (OT) demanding ware and software systems) and Information Technology (IT) (Data systems and network) domains using a hybrid ICS (Industrial Control System) model to simulate a turbofan system.

**Major Learning Outcomes :** Ignition SCADA, MSSQL(RDBMS), OPTP22 PAC, Software design and development cycle, system architecture, KPI monitoring and analysis of an electric fan

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** I was put into the I4.0 tower in the India Digital Capability Center(IDCC). We have 5 working days of which we are afforded 2 days wfh (Monday and Friday). There is no punch in-out and it's up to the employee how they clock their 8 hrs. There is no demanding and fast seating arrangement/system mapping as everyone carries their company laptops with them and can setup at any desk, there are no cubicles to encourage collaboration. There is however a very strict technical data control policy subject to global trade and arms in the company.

**Academic courses relevant to the project :** Yes

**PS-II STATION : PRECOG INNOVATIONS PARTNERS PVT. LTD ,GURGAON**

**FACULTY NAME: PARAG RASTOGI**

**STUDENT NAME: SHIVAM SAHU . (2020B3A31858H)**

Student Write-up

**PS-II Project Title:** Strategic Venture Analysis and Climate-Tech Scouting for India's Net-Zero Transition

**Short Summary of work done during PS-II :** Net Zero-focused VC firm, spanning investment research, startup evaluation, and strategic advisory. Key areas included sector research in defense, aerospace, and EV components; valuation modeling and benchmarking using DCF and comparable analysis; startup scouting for M&A and VC leads; and military RFQ mapping. I also conducted company deep dives across hydrogen, LENR, nanomaterials, waste-to-energy, and solar nanotech domains. Additional work included competitive benchmarking of EVQPoint, scouting VFD manufacturing targets for a conglomerate, and creating venture summaries. Tools used included Excel, Tableau, Capital IQ, Tracxn, and MCA21.

**Tool used (Development tools - H/w, S/w) :** Excel, PPT, CapitalIQ, Tracxn, Tofler, MCA

**Objectives of the project :** Strategic Venture Analysis and Climate-Tech Scouting for India's Net-Zero Transition

**Major Learning Outcomes :** This internship provided end-to-end exposure to venture lifecycle processes including sourcing, evaluation, valuation, benchmarking, and strategic decision-making in deeptech and Net Zero sectors. It enabled mastery of analytical workflows at the intersect.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Helpful, Supportive, Encouraging

**Academic courses relevant to the project :** Financial Management, Power Systems, Power Electronics, Development Economics, Business Analysis and Valuation

**PS-II STATION : PROCTER & GAMBLE (P&G) ,MUMBAI**

**FACULTY NAME:** ANKUR PACHAURI

**STUDENT NAME:** SURAJ VIJAY PHALOD . (2020B3A71959P)

Student Write-up

**PS-II Project Title:** Shipment Demand Forecasting

**Short Summary of work done during PS-II :** Worked on Algorithmic ML Forecasting solutions to estimate shipments, worked on incorporating new signals and features that could help increase overall forecast accuracy, tried new approaches and improved accuracy vs current business approach.

**Tool used (Development tools - H/w, S/w) :** Azure Databricks, Pyspark, SQL, Numpy, Pandas, MLFlow, Github, Git, PowerBI

**Objectives of the project :** To improve accuracy and optimize inventory flow for shipments, automation of shipment planning process

**Major Learning Outcomes :** Industry standards for forecasting  
Planning process and business nuances in planning  
ML Frameworks for forecasting

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Good working environment, continuous learning and ownership, aspirational challenges, interesting projects

**Academic courses relevant to the project :** Foundations of Data Science, Machine Learning, Data Mining, Deep Learning.

**PS-II STATION : PROTEANTECS - MACHINE LEARNING, BENGALURU**

**FACULTY NAME:** SWAPNA S KULKARNI

**STUDENT NAME:** GEORGE SIMON (2021AAPS2694H)

Student Write-up

**PS-II Project Title:** MLops

**Short Summary of work done during PS-II :** worked on creating tests and deployments for various algorithms

**Tool used (Development tools - H/w, S/w) :** github, python, playwright

**Objectives of the project :** Work on tasks related to deployment and quality of algorithms

**Major Learning Outcomes :** Python, Git

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Good working environment. Tasks are defined clearly and team is helpful.

**Academic courses relevant to the project :** Yes

**PS-II STATION : PWC US ADVISORY ,BENGALURU**

**FACULTY NAME:** SAI KISHOR JANGITI .

**STUDENT NAME:** SAHIL SUDESH (2020B4A31868G)

Student Write-up

**PS-II Project Title:** Customer Link Intern



**Short Summary of work done during PS-II :** My work was mainly involved in the Data refresh for various surveys that are used to collect the data. I was involved in the preparation and updating of the survey data. Apart from that I was also involved in various client engagements that involved using the data fabric to generate insights based on client requirements.

**Tool used (Development tools - H/w, S/w) :** Pyspark, Ms Excel, Ms PowerPoint, Python

**Objectives of the project :** Use the data fabric to generate insights for various clients. Engage in internal and client projects based on requirements.

**Major Learning Outcomes :** Client Engagement, Data Science Consulting, Data Analytics

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** The Customer Link team which I was a part of is really welcoming and supportive. This team has several BITS Alumni as well. The team culture is great and allows you to learn and improve at the same time.

**Academic courses relevant to the project :** Machine Learning, Artificial Intelligence

**PS-II STATION : QICAP MARKETS LLP ,BENGALURU**

**FACULTY NAME: SHREYAS SURESH RAO .**

**STUDENT NAME: PAVAN S V (2021A3PS0810H)**

Student Write-up

**PS-II Project Title:** Design and Verification of an IP

**Short Summary of work done during PS-II :** Understand and improve upon existing FPGA architecture using RTL Design and Design Verification using UVM based testbench. Complete ownership of an entire IP (Design optimisations/changes and Design Verification). Created UVM based testbench at the IP level for more rigorous testing of the design changes. Optimised the existing IP according to the company's requirement.

**Tool used (Development tools - H/w, S/w) :** HDL used - Systemverilog (mainly), Verilog ; Industry standard tools used - Xcelium for simulations, Vivado for simulations and synthesis of design on FPGA

**Objectives of the project :** Learn about RTL design and Design verification using industry standard tools and methodology and have meaningful contribution to the team and the company helping them move forward.

**Major Learning Outcomes** : RTL Design, and Design Verification

**Details of Papers/patents** : Nil

**Brief Description of working environment, expectations from the company** : The company promotes a collaborative and team-oriented culture where employees work together to achieve common goals.

The work environment encourages open communication and transparency at all levels.

**Academic courses relevant to the project** : 1. EEE F215 - Digital design  
2. EEE F348 - FPGA based system design lab  
3. CS F342 - Computer architecture

**PS-II STATION** : QICAP MARKETS LLP ,BENGALURU

**FACULTY NAME**: SHREYAS SURESH RAO .

**STUDENT NAME**: PATEL DHRUV YOGESH (2021A7PS2672G)

Student Write-up

**PS-II Project Title**: Exchange Simulator of Stock Exchanges

**Short Summary of work done during PS-II** : I created exchange Simulator completely in C++ for exchange NSE,BSE and MCX. Network Module for handling connection and Encryption / Decryption Module for secure communication.

**Tool used (Development tools - H/w, S/w)** : C++

**Objectives of the project** : To create a mock simulator exchange server able to handle client requests like the original exchange for testing purpose

**Major Learning Outcomes** : C++, Network Programming, Multi-Threading

**Details of Papers/patents** : -

**Brief Description of working environment, expectations from the company** : Little hectic but as compared to HFT it is good.

**Academic courses relevant to the project :** Data Structure and Algorithms, Computer Networks, Operating Systems.

**PS-II STATION :** QICAP MARKETS LLP ,BENGALURU

**FACULTY NAME:** SHREYAS SURESH RAO .

**STUDENT NAME:** ADITYA MAHAJAN (2021A7PS2715H)

Student Write-up

**PS-II Project Title:** Data Operations for Algorithmic trading

**Short Summary of work done during PS-II :** Created architecture for companies transition from AWS to GCP. Also made data checking scripts as a side project.

**Tool used (Development tools - H/w, S/w) :** Python, AWS, GCP, Redis, Bash, MySQL

**Objectives of the project :** Data sanity checks, AWS to GCP transition

**Major Learning Outcomes :** Cloud computing, from end to end. General knowledge of algorithmic trading.

**Details of Papers/patents :** Nil

**Brief Description of working environment, expectations from the company :** I developed a sense of discipline, responsibility, and perseverance through the assigned tasks. The experience also taught me to approach challenges with a positive mindset.

**Academic courses relevant to the project :** Yes

**PS-II STATION :** QICAP MARKETS LLP ,BENGALURU

**FACULTY NAME:** SHREYAS SURESH RAO .

**STUDENT NAME:** ANSH KANOTRA (2021AAPS3025H)

Student Write-up

**PS-II Project Title:** Demandingware in Finance

**Short Summary of work done during PS-II :** Sealed By NDA, worked on RTL Design and creation of testbenches for the FPGAs running trades

**Tool used (Development tools - H/w, S/w) :** Vivado, SystemVerilog, UVM, Linux

**Objectives of the project :** To use demanding ware for high frequency trading

**Major Learning Outcomes :** SystemVerilog and UVM

**Details of Papers/patents :** none

**Brief Description of working environment, expectations from the company :** Very intense working environment with harsh deadlines and expectations, but the knowledge capture and experience with amazing with some really nice mentors

**Academic courses relevant to the project :** Digital Design, Computer Architecture, Embedded Systems, FPGA Design

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: RASHI SINGH (2021A3PS0807H)**

Student Write-up

**PS-II Project Title:** SMMUv3 Profiling

**Short Summary of work done during PS-II :** During my internship, I worked on two key projects. The first project involved analyzing the differences in latency and performance when multiple threads, created by multiple cores, are inserted into a shared command queue compared to dedicated, independent queues within the SMMUv3 architecture. This work aimed to assess potential improvements in system efficiency and responsiveness. For my second project, I utilized kprobes to trace the mapping, unmapping, and invalidation processes conducted by SMMUv3 for different devices. The data gathered from kernel logs was shared with various teams to help them identify opportunities for improvement and optimization.

**Tool used (Development tools - H/w, S/w) :** Qualcomm's 8-core testing device, Python, C, Linux kernel documentation, Excel

**Objectives of the project :** Testing on the SMMUv3 architecture to identify and improve areas of latency

**Major Learning Outcomes :**

1. In-depth understanding about the CPU processing and how various devices work together
2. Use of python for post-processing data from testing
3. Data analysis from raw data

**Details of Papers/patents :** Not applicable(no patents or papers were written by me, only worked on testing and analyzing device working)

**Brief Description of working environment, expectations from the company :** The working environment at Qualcomm is notably different from what one might expect at a large corporation. Colleagues are warm, approachable, and always willing to assist, ensuring a supportive and inclusive atmosphere. Team members readily answer questions, guiding you in understanding your tasks and fostering a sense of camaraderie and collaboration.

Qualcomm places a strong emphasis on logical reasoning and opportunity-solving, valuing thoughtful contributions over repetitive work. Employees are encouraged to bring fresh perspectives and innovative ideas to the table, creating a dynamic environment that nurtures creativity and professional growth.

The company also prioritizes work-life balance, with standard work hours from 9 a.m. to 5 p.m. Overall, Qualcomm's environment promotes respect, continuous learning, and a healthy balance between individual initiative and team collaboration. It is a place where you can expect to be supported, challenged, and inspired in equal measure.

**Academic courses relevant to the project :** C programming,

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: MAHI KUMARI (2021A3PS0948H)**

Student Write-up

**PS-II Project Title:** Padding RTL generation for System on Chip (SoC)

**Short Summary of work done during PS-II :** At Qualcomm, I worked in the SoC Infrastructure IP team where my primary responsibility was to generate and validate the RTL for the padding and pin muxing logic for a next-generation SoC. The work started from understanding design specifications provided by the Architecture and Board Design teams. I created parametrized, reusable RTL code for different types of pads and validated it using sanity checks and diff analysis. I also reviewed padding connectivity to ensure correct external interfacing. In addition, I supported the team in reviewing SoC interconnect pipelining to ensure reliable and optimized data transfer between various IP blocks. These tasks required collaboration with teams like PD, STA, and DFT, and helped ensure design integrity across the entire chip.

**Tool used (Development tools - H/w, S/w) :** Languages: Verilog HDL, System Verilog HDL OS: Linux Editors: GVim Version Control: IBM ClearCase Remote Access Tool: Exceed TurboX (ETX)

**Objectives of the project :** generating Pading RTL for the latest SoC project. This work is based on the specifications provided by the Architecture and Board Design teams. It involves continuous interaction with other SoC teams like PD, DFT and STA as well, incorporating their feedback and making iterative improvements.

**Major Learning Outcomes : omes**

Gained hands-on experience in RTL design and SoC infrastructure, especially in padding IP development.

Understood the complete SoC design flow, from RTL coding to physical design and verification. Learned to work with industry-grade tools like Veri.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Qualcomm offered a fast-paced and collaborative work environment. The team followed standard design processes and maintained high technical quality. As an intern, I was given real responsibilities and was expected to take ownership of my tasks. There was a strong focus on writing clean RTL code and making sure it met design requirements. I regularly participated in design reviews and worked closely with teams like physical design, timing analysis, and testing. Good documentation, timely progress updates, and debugging were part of the daily routine. While the work was challenging, the team was supportive and always ready to help. The experience helped me learn a lot and grow both technically and professionally.

**Academic courses relevant to the project :** Digital Design, Computer Architecture, Analog and Digital VLSI Design.

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: GOPALCHETTY TEJASWI . (2021A3PS2384P)**

Student Write-up

**PS-II Project Title:** Physical Design and Development of a custom CPU on Qualcomm SoC

**Short Summary of work done during PS-II :** Implemented the RTL to GDSII flow on an entire cluster of CPUs on Qualcomm SoC. Involved in extensive debugging and optimization of timing paths and placement/route efficiency for the design. Designed a procedure which takes the worst timing paths in the design and extracts detail routing data, analyses the data based on predefined parameters, and provides structured inferences on the EDA tool performance on performing PNR on the design.

**Tool used (Development tools - H/w, S/w) :** Cadence Genus and Innovus (others are CCI)

**Objectives of the project :** Implementing the physical design flow from RTL to GDSII for the next generation Qualcomm SoC; Ensuring the design satisfies the required power, frequency, performance demands.

**Major Learning Outcomes :** 1) The PNR flow (eg. Floorplan, synthesis, placement, CTS, routing, signoff).

2) Static Timing Analysis, setup and hold checks

3) How to improve timing

4) How to improve routing and placement congestion, how to utilise floorplan effectively

5) Low power

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Working times were flexible. Only mattered when you were able to present results within time. Rough daily worktime was about 10AM-5PM. (But in times of high demand you are expected to be online for 24\*7). As per company policy, you can take 1 day work from home, but according to team, it can be more or less.

The team was pretty relaxed and balanced and friendly. Mostly all were approachable and ready to serve knowledge. Very fast learning curve for the last 2 months.

The company buildings also have quick fun activities like Table Tennis and Foosball. Been to 1 trek and 1 outing within the company till now.

So, the work is demanding as well as rewarding.

**Academic courses relevant to the project :** DD, ADVD, Comparch

In the case of Physical Design, you will learn the most of it in the company.

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: SHIVAM ATUL TRIVEDI (2021A7PS1512H)**

Student Write-up

**PS-II Project Title:** Qualcomm AI Orchestrator

**Short Summary of work done during PS-II :** Worked on various python scripts that automate small tasks that otherwise needed to be done manually. Made changes to these scripts and added them to Jenkins pipelines so that they become part of the release process (obviously first tried on a separate test Jenkins job to check if the changes don't affect the existing pipeline flow and

code; code changes were added to a new branch) which were later merged to main branch if they passed all required tests and checks.

**Tool used (Development tools - H/w, S/w) :** SW Tools - Jenkins, Git, Gerrit, Linux VM; Languages - Python, Groovy, Bash

**Objectives of the project :** To get to know about Qualcomm AI Orchestrator and the workings and process involved on a daily basis to get out minor releases and eventually the final version to the customer.

**Major Learning Outcomes :** Learnt about release process - how code is maintained and synced to latest changes on a daily basis, how it is passed through several unit tests before passing onto next team, how it needs to be monitored and updated daily, various teams and approvals inv

**Details of Papers/patents : N.A.**

**Brief Description of working environment, expectations from the company :** Team environment was very relaxed and balanced with flexible working hours, mentors were very helpful and guided me whenever needed, did not mind my questions. Other teammates were accommodating to small queries and set-up aspects too. Company expects positive, regular and meaningful contribution to team environment and project of-course.

**Academic courses relevant to the project :** OOPS, OS, NLP

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: SHASHANK REDDY GADE (2021AAPS0482H)**

Student Write-up

**PS-II Project Title:** PMIC Checklist Simulations Automation

**Short Summary of work done during PS-II :** During my PS-II internship, my primary responsibility was Python scripting with the goal of automating repetitive and time-consuming manual tasks. The first task involved automating the mapping of connector pins to sense resistors. The output of this mapping process was then used to generate a DAQ (Data Acquisition) configuration file automatically, eliminating the need for manual entry and reducing the scope for errors. The second and more extensive project focused on PMIC (Power Management IC) simulations. The script was designed to analyze PCB designs and perform simulations on various voltage regulators—including both switchers and LDOs—across different PMICs. It identified parasitics arising due to PCB traces and discretes mounted on them at voltage regulator pins and other



critical PMIC pins. The results from these simulations, especially the parasitic data, were automatically compiled and presented in an Excel format. This information is critical in evaluating the reliability and efficiency of the PCB design with respect to PMIC placement and routing, especially in power-sensitive applications.

**Tool used (Development tools - H/w, S/w) :** Python, TCL, Sigrity PowerSI, Sigrity PowerDC, Excel

**Objectives of the project :** Create Automation tools to help engineers with manual simulations

**Major Learning Outcomes :** Python Scripting, Automation of workflow involving Power and Signal Integrity analysis tools' simulations used for PMIC Spec validation

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The work environment was structured around individual responsibility with equal emphasis on collaboration. Employees are expected to complete their own tasks but also assist others when needed or when their work contributed to broader projects.

There was a focus on reusability—work done for one task could be applied elsewhere if relevant. Presentation skills are heavily emphasized, highly impacting performance evaluation. Regular meetings were held to discuss progress and ensure alignment across teams.

The environment required a mix of independent execution and equal team involvement. Communication was important, and maintaining standards was essential. Tasks had to be completed with accuracy and consistency, and performance was measured both by output and how it was presented.

**Academic courses relevant to the project :** Electric Circuit Theory, Signals and Systems, Control Systems, Microelectronic Circuits, Electromagnetic Theory, Power Electronics, Analog Electronics

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: SAI CHARAN VIHARI KATLAMUDI (2021AAPS0564H)**

Student Write-up

**PS-II Project Title:** NOT DISCLOSABLE AS ITS COMPANY CONFIDENTIAL INFORMATION(WORKD BASICALLY ON AI AGENT ORCESTRATION)

**Short Summary of work done during PS-II :** Over the past six months, I have gained significant hands-on experience working with Agentic AI, Retrieval-Augmented Generation Systems (RAGs), Django, and C#. My work with Agentic AI involved designing and implementing intelligent agents

capable of autonomous decision-making and complex task execution. I also focused on building and optimizing RAG pipelines, which enhanced the performance of large language models by integrating external knowledge retrieval into the generation process. In addition, I developed and maintained web applications using Django, taking advantage of its powerful features for rapid backend development. On the software engineering front, I worked with C# to create robust applications and plugins, further strengthening my skills within the .NET ecosystem. These projects have collectively deepened my expertise in both AI-driven solutions and modern software development frameworks.

**Tool used (Development tools - H/w, S/w) :** Software hence no much of tools used.

**Objectives of the project :** BUILDING AN END TO END AGENTIC AI WORKFLOW

**Major Learning Outcomes :** AGENTIC AI,RAGS,DJANGO,C#

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** During my time at Qualcomm over the past six months, I had the opportunity to immerse myself in a truly collaborative and dynamic work environment. From the outset, I was impressed by how approachable and supportive everyone was, making it easy to integrate into the team and contribute meaningfully to our projects. The work culture at Qualcomm is a balanced blend of professionalism and camaraderie, where innovation is encouraged, and knowledge sharing is a daily norm.

One of the standout aspects of my experience was our manager, who fostered a relaxed and open atmosphere. He was exceptionally relaxed and balanced—always approachable, quick to offer guidance, and genuinely invested in our growth. He trusted us to manage our own time and tasks, which not only boosted our confidence but also motivated us to take ownership of our work. His laid-back attitude made it easy to discuss challenges or new ideas without any hesitation, and he often lightened the mood with his sense of humor during meetings.

My colleagues at Qualcomm were equally amazing—super friendly, welcoming, and always ready to help, whether it was troubleshooting a technical aspect or grabbing coffee together. There was a strong sense of teamwork, and everyone celebrated each other's successes, big or small. The collaborative spirit extended beyond work, with team lunches and casual hangouts that made the workplace feel like a community. Overall, my experience at Qualcomm was incredibly positive, and the supportive, relaxed and balanced culture played a huge role in making it both enjoyable and rewarding.

**Academic courses relevant to the project :** AI,Machine learning,OOPS,DBMS,OS

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: AMIT NARAYAN SATPATHY (2021AAPS2127H)**

Student Write-up

**PS-II Project Title:** Carrier Aggregation Analysis Tool

**Short Summary of work done during PS-II :** We started with studying the existing code for the tool. After finding the opportunities with the code, we were asked to rewrite the code keeping all the essential checks for resource allocation on RF cards for a combo intact. This was followed by testing for corner cases involving various combos of 4G LTE bands and 5G NR bands. This was followed by optimization of the code to reduce run time.

**Tool used (Development tools - H/w, S/w) :** Microsoft Visio, Visual Studio Code, Microsoft Excel, Microsoft Excel

**Objectives of the project :** To improve the existing tool code and rewrite it to enable newer cases and test it.

**Major Learning Outcomes :** • Understood how Python scripting can help automate manual effort.

• Understood the ideas of RF Design and automation.

**Details of Papers/patents :** No papers as such.

**Brief Description of working environment, expectations from the company :** The working environment was cordial. Everyone around was cooperative. However, there were some aspects related to the higher management not being well updated with the project on the day of the final presentation. Other than that, it was a smooth experience.

**Academic courses relevant to the project :** Electromagnetic Fields and Microwave Engineering, Computer Programming

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: ASHESH VERMA (2021AAPS3021H)**

Student Write-up

**PS-II Project Title:** Power optimization in xr chipsets

**Short Summary of work done during PS-II :** Optimise power in xr chipsets and collect power numbers and perform several experiments and tests

**Tool used (Development tools - H/w, S/w) :** Linux os

**Objectives of the project :** To optimize power consumption in xr chipsets

**Major Learning Outcomes :** Ways to optimize power in chipset

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Flexible timings and great friendly work environment

**Academic courses relevant to the project :** OS

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: AAYUSH JAIN (2023H1030083P)**

Student Write-up

**PS-II Project Title:** Automotive Multimedia Software Engineer

**Short Summary of work done during PS-II :** The initial learning focused on Linux kernel internals and acquiring a working proficiency with Loadable Kernel Modules. Simultaneously, tasks assigned were aimed at understanding the demandingware and analyzing logs, which is the core task of the Customer Engineering team. Further, I learned about the QNX hypervisor and audio- specific components in the Hexagon aDSP. I also explored IPC concepts in Android's Audio HAL. Beyond this, I was involved in developing a tool for log analysis and contributing to the source code that drives Qualcomm's audio offerings.

**Tool used (Development tools - H/w, S/w) :** C, C++, Python, Qualcomm-proprietary SW and HW tools

**Objectives of the project :** Support the Automotive Audio Customer Engineering team with customer cases and debugging aspects

**Major Learning Outcomes :** Learnt about the audio flow in the Linux kernel and Qualcomm- specific demandingware components, learnt Linux kernel programming and internal tool development

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Supportive working environment with significant flexibility to collaborate across domains.

Company expectations included prompt completion of deliverables, especially those linked to customers, and regular learning to understand the processes relevant to the work.

**Academic courses relevant to the project :** Advanced Computer Architecture, Real Time Systems, Software for Embedded Systems

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: GONDHALEKAR ADWAIT ATUL (2023H1030089P)**

Student Write-up

**PS-II Project Title: Testing Automation Suite**

**Short Summary of work done during PS-II :** During my internship, I was responsible for designing and developing an automated testing suite for an internal command-line tool. I began by building the initial structure from the ground up, where each command had its own set of test cases organized into sub-suites. This setup allowed the testing process to be modular, efficient, and easy to manage. Once the test suite was in place and functioning as expected, I shifted my focus to improving the way test results were reported. Originally, the system generated separate reports for each sub-suite, which made it challenging to get an overall picture of the testing outcomes. To address this, I implemented a consolidated reporting feature that combined the results of all sub-suites into a single, high-level summary. This made the output clearer and more useful for the team. Along the way, I also reviewed and debugged parts of the codebase to ensure everything ran smoothly, making several improvements to optimize the process. I regularly adapted to feedback, worked independently on solutions, and collaborated with the team when needed. Overall, this internship helped me gain hands-on experience in building practical solutions from scratch, understanding large codebases, and improving existing systems

— while strengthening my analytical and opportunity-solving skills in a real-world work environment.

**Tool used (Development tools - H/w, S/w) : Python**

**Objectives of the project :** Automate testing and validation for different demandingware components on Qualcomm Hexagon DSP.

**Major Learning Outcomes :** Gained hands-on experience in understanding and enhancing automated testing frameworks. Improved skills in generating consolidated reports and analyzing codebases for optimization and debugging, which deepened my understanding of test architecture and rep

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was professional, collaborative, and supportive. I was given the flexibility to manage my own tasks while also being encouraged to take ownership of the work assigned to me. Regular check-ins and feedback sessions helped me stay aligned with project goals and maintain steady progress.

The company expected me to quickly understand the existing systems, work independently on assigned tasks, and contribute meaningful improvements. Attention to detail, timely communication, and delivering reliable results were key expectations. I was also encouraged to proactively identify aspects, suggest solutions, and adapt to evolving requirements as the project progressed.

Overall, the environment promoted learning, accountability, and an opportunity-solving mindset, which helped me grow both technically and professionally.

**Academic courses relevant to the project :** Advanced Computer Architecture, Software Testing Methods

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: VADLAMANI MANJUSHA (2023H1030097H)**

Student Write-up

**PS-II Project Title:** Camera Basics &HAL Interface in Camera IOT

**Short Summary of work done during PS-II :** Gained knowledge about camera basics and Hal interface.

**Tool used (Development tools - H/w, S/w) :** Worked with Qualcomm internal software and tools

**Objectives of the project :** HAL Interface, Camera Basics

**Major Learning Outcomes :** HAL and Proprietary layer interface

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** Good

**Academic courses relevant to the project :** C++

**PS-II STATION :** QUALCOMM ,HYDERABAD

**FACULTY NAME:** MADHURI BAYYA .

**STUDENT NAME:** LUHANA VANDANA CHETANDAS (2023H1120189P)

Student Write-up

**PS-II Project Title:** Ai software (Unit testing and FuSa)

**Short Summary of work done during PS-II :** The first task involved comprehensive training on QNN, equipping with advanced knowledge in these technologies. The further tasks included mastering parasoft and Gtest for test generation and unit testing, enhancing ability to ensure high code quality. Then utilising Gcov/Lcov for internal builds. The next task included development of automation script to streamline unit test execution, report generation enhancing overall productivity. Handling unit test failures, writing Gtest and conducting risk analysis and targeted test enhancement were key activities during the second half of the internship.

**Tool used (Development tools - H/w, S/w) :** Grok, GitHub, Parasoft, VS Code

**Objectives of the project :** FuSa Code Coverage, Unit testing, Automation of manual work

**Major Learning Outcomes :** Python scripting.

Automation testing.

Learned about different testing methods and tools. Risk analysis.

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Company fosters a collaborative and dynamic working environment where interns are encouraged to engage actively with their teams. The workspace is designed to be open and inclusive, promoting communication and teamwork. Interns have access to modern tools and resources, ensuring they can contribute effectively to projects. It promotes great team work where each team member is equally supportive and enthusiastic to support each other. Interns are expected to demonstrate a proactive attitude and willingness to learn. They should be able to manage their time effectively, meet deadlines, and contribute positively to team efforts. Professionalism and a

strong work ethic are highly valued, as is the ability to collaborate with colleagues from diverse backgrounds.

**Academic courses relevant to the project :** Software testing methods, LLM

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME:** MADHURI BAYYA .

**STUDENT NAME:** UTKARSH SINGH (2023H1230147G)

Student Write-up

**PS-II Project Title:** Optimising DSP Performance using AI Clustering Technique

**Short Summary of work done during PS-II :** Using AI , we are identifying outliers which cause noise so we need to remove it to enhance performance of our chips.Hence instead of identifying manually we have created a way using AI that these certain noise we need to remove to enhance up performance.

**Tool used (Development tools - H/w, S/w) :** Jupyter Notebook, Linux, OpenTurbo ETX

**Objectives of the project :** Optimising DSP Performance using AI Clustering Technique

**Major Learning Outcomes :** Learnt about Michro-Architecture Learning of Qualcomm DSP that are used in Snapdragon SoCs .Also about can we improve performance verification of each unit present in architecture to the max.

**Details of Papers/patents : no**

**Brief Description of working environment, expectations from the company :** In Qualcomm, people are helpful and work environment is very much flexible enough to learn things at your own pace and implement accordingly.

**Academic courses relevant to the project :** VLSI Design

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME:** MADHURI BAYYA .

**STUDENT NAME:** AJAY KUMAR GIRI (2023H1230175H)

Student Write-up



**PS-II Project Title:** SoC design integration

**Short Summary of work done during PS-II :** We integrated various vlsi cores in a chip based on their communication protocols to build a whole SoC

**Tool used (Development tools - H/w, S/w) :** ClearCase, dragoncomplier,dragongate

**Objectives of the project :** To integrate various cores in an SoC chip

**Major Learning Outcomes :** Internals of a vlsi chips and how all the functionality is being inferred in the cores

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Environment was really good, all my teammates were helping me with any challengingness.

**Academic courses relevant to the project :** Electronic devices, advanced vlsi

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: GUDURU SAI SURESH (2023H1230183H)**

Student Write-up

**PS-II Project Title:** Static Timing Analysis in VLSI Physical Design Signoff Flow

**Short Summary of work done during PS-II :** My work includes helping HM STA team in firing STA, Tweaker Hold ECO, DMSA setup ECOs, Leakage Signoff ECO and providing the team with analysis reports on STA and ECOs.

**Tool used (Development tools - H/w, S/w) :** demanding ware Tools - Prime Time, Tweaker

**Objectives of the project :** To analyze the timing violations in different stages of PD PnR Flow and help the team in timing closure.

**Major Learning Outcomes :** Static Timing Analysis, Understanding on Digital Layout Design

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Very supportive working environment, At any time support is there from mentors, as interns company gives us chance to express our doubts to mentors and also encourages us to come up with supporting ideas.

**Academic courses relevant to the project :** CAD for IC Design, Advanced VLSI Design, VLSI Design

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: RADHANATH MISHRA (2023H1230185H)**

Student Write-up

**PS-II Project Title:** Conversion of RTL of a design block into netlist

**Short Summary of work done during PS-II :** I was provided with the RTL code for a design block. And, I had to perform synthesis on it to generate the netlist. The Quality of Results (QoR) was assessed in terms of clock gating %, multibit optimization %, leakage power, area, timing (from STA). There are also other factors to consider during synthesis, for example, certain pipeline flip- flops should not get merged, some cells should not be clock-gated, there should not be any buffers/inverters inserted in an analog path, etc. These factors are controlled through custom scripts. Handoff to PD (Physical Design) team is done only after the desired QoR is achieved. To ensure that the RTL code and netlist are functionally equivalent, logical equivalence checking (LEC) was carried out. If the QoR obtained is not satisfactory, the input parameters to the synthesis tool are altered, such that the target is achieved. Low power checks were also performed to ensure that the desired low power architecture was being followed by the tool.

**Tool used (Development tools - H/w, S/w) :** 1. Synthesis: Synopsys Fusion Compiler 2. LEC: Cadence Conformal 3. STA: Synopsys Primetime.

**Objectives of the project :** The objective of the project was to perform synthesis on the RTL code of a design block and convert it into a netlist. The netlist was further validated using logical equivalence checking (LEC) and static timing analysis (STA).

**Major Learning Outcomes :** Developing an understanding of the following steps in ASIC Design Flow:

1. Synthesis of RTL code into netlist
2. Logical Equivalence Checking between the RTL and netlist
3. Basic Static Timing Analysis (STA) on the synthesized netlist

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment is great. There is a lot to learn, and everyone is always ready to help, support and explain complex topics/tasks. My managers were very approachable throughout the internship. I had several interactions with them which helped in enhancing my understanding of RTL synthesis.

**Academic courses relevant to the project :** Digital VLSI Design, CAD for IC Design

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: SHREEBHASHYAM ROHITH (2023H1240054H)**

Student Write-up

**PS-II Project Title:** Smart Transmission

**Short Summary of work done during PS-II :** I am working on a feature called smart transmission where i will control the power between modem and wifi

**Tool used (Development tools - H/w, S/w) :** Source insight, beyond compare, perforce

**Objectives of the project :** Parsing the scripts, Managing the power between WIFI and MODEM

**Major Learning Outcomes :** Learned many things including Debugging, Feature Implementations, Checking in the changes etc

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Work environment is good.

Getting good support from mentor and also from team mates. Getting all the resources for learning more

**Academic courses relevant to the project :** Courses related to wifi layers, RF and Microelectronics

**PS-II STATION : QUALCOMM ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: SANJANA DHARMENDRA TIWARI (2023H1240073P)**

Student Write-up

**PS-II Project Title:** RF software

**Short Summary of work done during PS-II :** The project assigned to me involves parsing through the Demanding ware Configuration while checking the settings through RF Front end and validation through non-volatile memory ensuring data integrity.

**Tool used (Development tools - H/w, S/w) :** Visual studio, Qualcomm Internal tools

**Objectives of the project :** RF software calibration for all tier chipsets and storage utilising non-volatile memories.

**Major Learning Outcomes :** Gained in-depth understanding of RF Subsystems in mobile handsets, including key concepts and algorithms essential for reliable wireless communication.

**Details of Papers/patents :** The project phase I consisted of implementation of validation of the non-volatile memory against the demanding ware file configuration. The project phase II consists of parsing the HW Config along with the frontend to check the data integrity combinedly

**Brief Description of working environment, expectations from the company :** Developed practical insight into the challenges of applying theoretical knowledge to real-world wireless systems through hands-on experience. Improved programming and scripting skills, and learned effective teamwork processes and tool selection through cross-functional collaboration.

**Academic courses relevant to the project :** Wireless communication, Advance wireless communication, RF microelectronics.

**PS-II STATION : QUBE RESEARCH AND TECHNOLOGY INDIA LLP ,MUMBAI**

**FACULTY NAME: BANDI VENKATA PRASAD**

**STUDENT NAME: ARYAN GUPTA (2021A7PS0162H)**

Student Write-up

**PS-II Project Title:** Modernization of C# Data Quality Tests to Python

**Short Summary of work done during PS-II :** My primary work involved migrating data quality checks from C# to Python. The project aimed to enhance the firm's data quality management system by leveraging Python's ease of use, scalability, and strong community support. My work involved manually migrating the core check logic, implementing Pythonic improvements, and automating the migration of configurations for generic checks. The checks were rigorously tested on data sources and monitored post-scheduling to ensure expected performance. Tests for over 700 sources were scheduled at the completion of the internship.

**Tool used (Development tools - H/w, S/w) :** C#, Python, Powershell, Github, Github Copilot

**Objectives of the project :** Migrate Tests for Data Sources from C# to Pychecker

**Major Learning Outcomes :** - Cross-language Migration Expertise

- API and Scheduling Technologies
- Opportunity-solving in Legacy Environments
- Testing and Monitoring

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Working at a company like QRT, particularly in a role focused on data quality and migration, entails a fast-paced and technologically driven environment. The team is composed of elites, filled with experience and talent. There is ample support for any opportunities, though there might be a lack of time.

Expectations from the company primarily revolve around ensuring data integrity and consistency. These expectations include developing and maintaining systems that are "easy to use, scalable, and reliable". There is a constant need for robust and efficient data management. A strong understanding of programming best practices, opportunity-solving, and adaptability to new tools and complex legacy systems would be crucial.

**Academic courses relevant to the project :** Data Structures and Algorithms, Foundations of Data Science, Design & Analysis of Algorithms

**PS-II STATION : QURE.AI - PRODUCT MANAGEMENT ,BENGALURU**

**FACULTY NAME: SWARNA CHAUDHARY .**

**STUDENT NAME: KRISHNA PRASAD S (2020B5A41891G)**

Student Write-up

**PS-II Project Title:** Product Management and Business Development

**Short Summary of work done during PS-II :** I tracked the performance of lung nodule detection software by monitoring diagnostic data, analyzing accuracy metrics, and working with radiologists to improve the model. I contributed to enhancing the qTrack app by supporting language translations and ensuring accuracy with inputs from global partners. My role also included detailed market research in healthcare, where I studied key competitors' business models, product offerings, financials, and partnerships, helping the team understand the Indian market landscape. In the public health domain, I worked on the Ayushman Bharat Digital Mission, mapping its ecosystem, studying state-level implementations, and preparing comparative analyses on ABHA adoption across states. I also analyzed state PIPs under the National Tuberculosis Elimination Program, examining budget allocations and priorities in diagnostics.

**Tool used (Development tools - H/w, S/w) :** Excel, PowerPoint, Python

**Objectives of the project :** To contribute to product analytics, business development, and digital health research initiatives at Qure.ai.

**Major Learning Outcomes :** I gained practical experience in AI-based healthcare solutions and strengthened my skills in product performance analysis, market research in healthcare, competitor studies, and generating data-driven insights. The internship also helped me enhance my tea

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** A positive and supportive working environment with flexible office timings, a good work culture, and friendly, approachable people. The team was collaborative, and mentors were always willing to provide guidance whenever needed. The overall atmosphere encouraged learning, ownership, and teamwork. The company had clear expectations from interns — we were expected to perform at a level similar to full-time employees, taking responsibility for our tasks and delivering quality work. Depending on business needs, we could also be allocated to different departments or teams beyond our initial assignments.

**Academic courses relevant to the project :** Yes

**PS-II STATION : QURE.AI TECHNOLOGIES PVT. LTD. ,BENGALURU**

**FACULTY NAME: SWARNA CHAUDHARY .**

**STUDENT NAME: AYUSH GUPTA . (2020B3A70838P)**

Student Write-up

**PS-II Project Title: Building Scalable Systems**

**Short Summary of work done during PS-II :** I worked on the flagship product of the company - qure app. I worked on implementing some new features and fix some of the old ones. I worked on automating some of the redundant tasks to improve productivity. I performed benchmarking of new models and new systems and automated the entire process at the end.

**Tool used (Development tools - H/w, S/w) :** Python, Django, Next.js, Jenkins, Groovy, Git, Docker

**Objectives of the project :** 1. Improve features of the company flagship product. 2. Automate redundant works and improve efficiency.

**Major Learning Outcomes :** Learnt how a scalable application is built. Learned how to debug a huge codebase, how to improve the code efficiency, how to automate redundant tasks and write tests.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The company has a really good culture promoting creativity and ownership. You can bring new ideas to the table and get them implemented in real time. The people around are helpful. The company has a good wlb and you get sufficient work from home options.

**Academic courses relevant to the project :** Object Oriented Programming, Database Systems, Computer Networking.

**PS-II STATION : QURE.AI TECHNOLOGIES PVT. LTD. ,BENGALURU**

**FACULTY NAME: SWARNA CHAUDHARY .**

**STUDENT NAME: MANTHAN CHIRAG PATEL (2021A7PS2691H)**

Student Write-up

**PS-II Project Title: qCT**

**Short Summary of work done during PS-II :** Qure is an AI first company which provides its users with AI tools that increase the productivity of engineers. Additionally, I worked and in and around qCT, a product that deals with Progression monitoring of modules and CT scans. I also created a Feedback platform for the RnD department within 2-3 days using cursor code editor.

**Tool used (Development tools - H/w, S/w) :** Cursor code editor,

**Objectives of the project :** Add new features and also help customers complete their requirements

**Major Learning Outcomes :** Learnt a lot about Dicom format of File and its metadata and also about software development, mainly backend by leveraging the power of ai tools.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Great company, great learning experience, and great people that are always ready to help if you are willing and curious to learn and work on new things.

**Academic courses relevant to the project :** Database management systems, Operating System, Object Oriented Programming.

**PS-II STATION : RAHI PLATFORM TECHNOLOGIES ,PUNE**

**FACULTY NAME: ANKUR PACHAURI**

**STUDENT NAME: STITIPRANGYA PATRA (2020B4AA1856G)**

Student Write-up

**PS-II Project Title:** Building a Scalable Loan Management System: A SaaS-Based Approach

**Short Summary of work done during PS-II :** During PS-II at Rahi Platform Technologies, I worked on building a scalable SaaS-based Loan Management System. I contributed to core backend modules using Java and Spring Boot, designing and implementing REST APIs for loan applications, disbursements, and repayments. The architecture adopted the Hexagonal (Ports and Adapters) pattern and microservices for modularity and maintainability. A major focus was on the Handoff Module, which enabled seamless data integration between LOS and LMS using Kafka for event-driven processing. I developed robust services to automate the data ingestion pipeline, implemented validation layers, and ensured transactional integrity across multiple services (CreateAgreement, CreateCustomer, CreateLoanAccount, CreateDisbursement). Security was enforced using OAuth2.0 and JWT. Additionally, I implemented custom repositories replacing JPA for optimized query handling, integrated SLF4J logging, and ensured 100% test coverage



using TestNG. This experience enhanced my opportunity-solving and technical skills, while also preparing me for production-level software development.

**Tool used (Development tools - H/w, S/w) :** Languages/Frameworks: Java, Spring Boot, Spring Data Testing: TestNG, JUnit DevOps: Docker, Kubernetes, Liquibase, CI/CD Pipelines Event Streaming: Apache Kafka Databases: PostgreSQL, MySQL Security: OAuth 2.0, JWT Monitoring & Logging: SLF4J, ELK S

**Objectives of the project :** To develop a scalable SaaS-based Loan Management System (LMS) and Loan Origination System (LOS). To implement a handoff module for seamless integration between LOS and LMS. To adopt Hexagonal Architecture and microservices for better modularity and scalability. To ensure real-time processing, data integrity, and regulatory compliance in loan workflows.

**Major Learning Outcomes :** Deep understanding of SaaS architecture and microservices. Practical exposure to Hexagonal Architecture and Test-Driven Development (TDD). Gained hands-on experience in API development, transactional handling, and system integrations.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Rahi Platform Technologies was agile, collaborative, and technically enriching. The team followed sprint-based development cycles, with regular stand-ups and sprint reviews. I was assigned tasks related to backend API development and system architecture, receiving mentorship and code reviews from experienced developers.

The company expected interns to be self-motivated, follow clean coding practices, adhere to TDD principles, and actively participate in discussions and demos. The workspace promoted a learning-centric culture where even interns could take ownership of microservices and contribute to production-grade modules. I was encouraged to explore architectural improvements, raise PRs independently, and handle critical modules like the Handoff pipeline and fee rule engine.

This exposure helped bridge the gap between academic learning and real-world software development, instilling a strong foundation in scalable system design and enterprise-grade coding practices.

**Academic courses relevant to the project :**

Object-Oriented Programming

Database Systems

Software Engineering

Computer Networks

Advanced Java Programming

Probability & Statistics Financial

Mathematics

**PS-II STATION : RENESAS, HYDERABAD ,HYDERABAD**

**FACULTY NAME: SANJAY VIDHYADHARAN .**

**STUDENT NAME: R. HARIHARAN (2021AAPS1832H)**

Student Write-up

**PS-II Project Title:** Front End Power Design in U2B16-E Microcontroller

**Short Summary of work done during PS-II :** During the course of this six-month internship, I was part of various aspects of front-end design. I was primarily part of the power design and estimation team and was responsible for the various power estimation tasks for the U2B16-E microcontroller. As part of this team, I had the opportunity to learn to use industry standard tools like Synopsys PrimeTime.

**Tool used (Development tools - H/w, S/w) :** Synopsys PrimeTime, Siemens HLDRC, Cadence VCLP, Synopsys Verdi

**Objectives of the project :** Assist front end design team in Power implementation, estimation and architecture of u2b16e microcontroller

**Major Learning Outcomes :** 1. Understanding and using industry standard vlsi softwares from Synopsys and cadence  
2. Learning VLSI flow for SoCs and Microcontrollers, Power estimation for Post layout chips

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Work environment was very professional and not stressful. Managers had very realistic expectations for interns and would provide adequate training and assistance with all our opportunities.

**Academic courses relevant to the project :** Analog Digital VLSI Design, Digital Design, Microelectronic Circuits, Computer Architecture.

**PS-II STATION : RIGI - IT,BENGALURU**

**FACULTY NAME: REDDY RANI VANGIMALLA .**

**STUDENT NAME: SUBHRAMIT BASU BHOWMICK. (2020B1A70611P)**

Student Write-up

**PS-II Project Title:** Backend engineering at Rigi

**Short Summary of work done during PS-II :** Backend engineering. Working on microservices and platforms catering to the creator economy.

**Tool used (Development tools - H/w, S/w) :** MacBook Pro M2, JavaScript, MongoDB, Node.js, Express, VSCode, TypeScript, NestJS

**Objectives of the project :** Participate in and carry out various backend projects at Rigi

**Major Learning Outcomes :** Backend web development, product engineering

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Semester 1 - awesome working environment. Semester 2 - horrible environment.

**Academic courses relevant to the project : Yes**

**PS-II STATION : RT VISION TECHNOLOGIES PVT. LTD ,GREATER NOIDA**

**FACULTY NAME: HARISH KUMAR J. R.**

**STUDENT NAME: ABHISHEK SINGH CHIB (2023H1400107G)**

Student Write-up

**PS-II Project Title:** Development of Feedback Mechanism for DC Stepper Motor

**Short Summary of work done during PS-II :** During the internship at RT Vision Technologies, I developed a feedback mechanism for controlling and monitoring DC stepper motors using the DRV8462 motor driver and STM32 Nucleo-H753ZI microcontroller. Initially, I configured the DRV8462 using both GPIO and SPI modes, moving towards complete SPI-based control for scalability. A Command Design Pattern was implemented to modularize and simplify motor control logic. The system was further enhanced using ThreadX RTOS for efficient task management involving Ethernet communication, SPI transactions, and fault monitoring. I developed a real-time feedback mechanism that detects and logs motor faults such as overcurrent, undervoltage, and stall conditions using SPI. The logs, with timestamped data from the RTC, are stored in non-volatile memory and made accessible over Ethernet using a custom protocol. The motor control was optimized by integrating auto-torque dynamic current adjustment. Multiple motor drivers were also configured using both parallel and daisy-chain SPI configurations. This robust system supports real-time remote diagnostics and is scalable for industrial use.

**Tool used (Development tools - H/w, S/w) :** STM32 Cube IDE, DRV8462 Motor Driver, STM32 Nucleo-H753ZI Development Board, Logic Analyzer

**Objectives of the project :** The objective of the project was to develop a real-time feedback mechanism for DC stepper motors using the DRV8462 driver and STM32 microcontroller. It aimed to enable efficient motor control through SPI communication, implement fault detection without using encoders, and provide remote monitoring via Ethernet. Additional goals included integrating auto-torque for power optimization and designing a scalable system suitable for industrial applications.

**Major Learning Outcomes :** During the project, I gained hands-on experience in embedded systems design, particularly in configuring and controlling stepper motors using the DRV8462 driver and STM32 micro-controller. I learned to implement SPI-based communication for real-time motor.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** RT Vision Technologies offered a professional and encouraging environment focused on innovation and practical implementation of embedded systems. The team provided timely support and mentorship, especially in navigating demanding hardware interfacing and software architecture challenges. I had access to industry-standard tools and boards, with the freedom to explore and validate new ideas.

The company expected interns to take initiative, demonstrate opportunity-solving ability, and deliver working prototypes that could contribute to industrial applications. My tasks evolved from basic setup and exploration to the design of scalable, Ethernet-enabled, and fault-resilient systems. The company emphasized quality, code modularity, and real-time responsiveness. Their trust allowed me to take ownership of a significant portion of the embedded solution, fostering a culture of independent learning, responsibility, and collaborative opportunity-solving.

**Academic courses relevant to the project :** Embedded system design

**PS-II STATION : RT VISION TECHNOLOGIES PVT. LTD ,GREATER NOIDA**

**FACULTY NAME: HARISH KUMAR J. R.**

**STUDENT NAME: ADITYA SHRIVASTAVA (2023H1400131P)**

Student Write-up

**PS-II Project Title:** Development of Feedback Mechanism for DC Stepper Motor and Integration of Sensor-Based Microcontroller Systems

**Short Summary of work done during PS-II :** During my PS-II at RT Vision Technologies, I began by integrating the DRV8462 stepper motor driver with the STM32 Nucleo board, developing SPI- based firmware for precise motor control. I implemented features such as stall detection, current regulation, and auto torque using register-level programming. The system was later expanded to support Ethernet control using ThreadX RTOS for real-time remote operations. In the post- midsem phase, I explored advanced multi-motor configurations including daisy-chaining and parallel control. Simultaneously, I undertook sensor-based projects such as calibrating a PT1000 RTD using MAX31865, and processing accelerometer + gyroscope data from the Nicla Sense ME board for displacement estimation. The data was successfully transferred to ESP32 using both UART and I2C protocols. I also contributed to a machine learning R&D project by annotating over 900 railway wheel images using Roboflow. This internship offered comprehensive exposure to embedded systems, sensor integration, and data handling for industrial automation and smart sensing applications.

**Tool used (Development tools - H/w, S/w) :** Demandingware: STM32 Nucleo-H753ZI, DRV8462 EVM, ESP32, Nicla Sense ME, PT1000 RTD, RS Surface Heater Software: STM32CubeIDE, Arduino IDE, Tera Term, Logic Analyzer, Roboflow, Packet Sender, Python, Serial Monitor.

**Objectives of the project :**

- To design and implement a real-time feedback system for a DC stepper motor using DRV8462 and STM32
- To establish SPI and Ethernet-based communication for remote motor control and fault reporting
- To integrate and calibrate external sensors like PT1000 using MAX31865
- To utilize the Nicla Sense ME board for displacement tracking via IMU
- To transmit sensor data using UART/I2C to ESP32 for data monitoring

**Major Learning Outcomes :**

- Developed register-level SPI firmware for DRV8462 stepper motor driver

- Implemented real-time Ethernet-based motor control using ThreadX RTOS
- Calibrated temperature sensors and processed IMU data for motion estimation
- Achieved I2C/UART-based microc

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The work environment at RT Vision was collaborative, innovation-driven, and well-aligned with real-world industry practices. I was expected to manage individual modules independently while contributing to overall system development. I had the flexibility to design and test embedded solutions from scratch, including demanding ware configuration and firmware debugging. Weekly reviews helped track progress, and any demanding ware limitations were discussed and resolved with the team promptly.

The company valued experimentation and encouraged me to prototype, iterate, and validate designs on real demanding ware. I had access to EVM boards, multimeters, oscilloscopes, and network debugging tools. Overall, the learning curve was steep and rewarding.

**Academic courses relevant to the project :**

- Embedded Systems
- Microprocessors and Interfacing
- Digital Electronics
- Sensors and Actuators
- Signals and Systems
- Control Systems (for feedback theory)

**PS-II STATION : RUBRIK,BENGALURU**

**FACULTY NAME: FEBIN A VAHAB .**

**STUDENT NAME: PAVAS GARG (2021A7PS2587H)**

Student Write-up

**PS-II Project Title:** Rate Limiting and Topology Aware Routing for Enhanced Microservice Stability and Performance

**Short Summary of work done during PS-II :** Design and implementation of two critical systems aimed at enhancing the stability and performance of a microservices architecture: a resilient rate limiting system and a topology-aware routing mechanism in Kubernetes. The rate limiting system leverages gRPC interceptors to enforce fine-grained, per-endpoint control without requiring additional infrastructure. It enables dynamic configuration updates, a centralized policy distribution mechanism, and integrates seamlessly with monitoring systems to provide real-time visibility into traffic patterns and enforcement behavior. The implementation demonstrated minimal latency overhead (<2ms per request) while effectively mitigating cascading failures during traffic surges. In parallel, the topology-aware routing (TAR) project explores enhancements in Kubernetes networking to ensure zone-aware traffic routing across a multi-zone cluster. By leveraging Kubernetes features such as topology spread constraints (TSC), custom node labeling, annotations, and usage of the kube-scheduler and kube-proxy, the system reduces cross-zone traffic latency and enhances service reliability. TAR optimizations led to improved routing decisions by ensuring better locality, reduced inter-zone network costs, and more efficient utilization of cluster topology. Together, these projects contribute to the design of a robust and adaptive infrastructure capable of handling modern production-scale microservices environments.

**Tool used (Development tools - H/w, S/w) :** Golang, Python, GCP, Bazel, Kubernetes, Grafana

**Objectives of the project :** This report presents the design To design and implement two critical systems aimed at enhancing the stability and performance of a microservices architecture: a resilient rate limiting system and a topology-aware routing mechanism in Kubernetes.

**Major Learning Outcomes :** 1. Containerization & Kubernetes: Developed a strong understanding of orchestrating

containerized workloads, resource scheduling, and auto scaling across zones.

2. Service Networking: Gained hands-on experience with gRPC, kube-proxy, and routing optimization

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment here is fantastic, everyone's super knowledgeable and genuinely ready to help out whenever you get stuck. What's really cool is that you'll get to take complete ownership of your projects. That means seeing something through from a simple one-pager idea all the way to it being used by the customers in production systems. People are always around to lend a hand, but they definitely expect you to put in your own effort and explore all possible solutions. You are expected to dig into bottlenecks in the tech stack and come up with end-to-end high-level system designs. Don't worry too much about specific tech initially, the main thing is that you're able to pick things up quickly and really contribute as you move along.

**Academic courses relevant to the project :** OOPS, DSA, DBMS, CN, OS

**PS-II STATION : RUSK MEDIA PVT. LTD - FULLSTACK ENGINEER ,NEW DELHI**

**FACULTY NAME: PRAVIN YASHWANT PAWAR .**

**STUDENT NAME: PRITAM BASU (2021A7PS2175H)**

Student Write-up

**PS-II Project Title:** Rumble Admin Panel, Rumble Sudoku, Outreach Agent AI

**Short Summary of work done during PS-II :** The first project, Rumble Admin Panel, focused on building an internal tool to automate widget and publisher management for the Rumble platform. Previously handled through manual database edits, this process was made more efficient with a user-friendly React and Next.js interface. Key features included widget creation, publisher mapping, and a Preview Widget section that allowed clients to visualize game carousels on their websites. Challenges like API delays, design inconsistencies, and limitations in third-party libraries were resolved through iterative development and custom component building. The second project, Rumble Sudoku, involved converting a web-based Sudoku game into a native Android app using Capacitor. The app was made compatible with both Android phones and TVs, with support for ads and push notifications via Firebase. Significant restructuring of layouts was required to optimize the experience across devices with very different screen sizes and navigation models. The third project, Outreach Agent AI, automated the process of identifying

and contacting potential partners using a CrewAI-based multi-agent system. Different AI agents collaborated to research companies, find relevant contacts through People Data Labs, and generate personalized emails. Challenges included dealing with LLM hallucinations, API rate limits, and restricted access to verified contact details.

**Tool used (Development tools - H/w, S/w) :** Visual Studio Code, React, Next.js, Tailwind CSS, ShadCN/UI, Capacitor, Android Studio, Firebase, People Data Labs API, CrewAI, OpenAI GPT, Postman, MySQL Workbench, Git, GitHub, JIRA, SWR, Java, Playwright, Node.js.

**Objectives of the project :** Rumble Admin Panel – To develop an internal tool that automates widget creation, publisher mapping, and content management for the Rumble platform, while providing clients with a live preview of how game carousels will appear on their websites. Rumble Sudoku – To convert a web-based Sudoku game into a native Android application compatible with both mobile devices and Android TVs, with integrated support for ads and push notifications. Outreach Agent AI – To automate partner outreach by building a multi-agent AI system that researches companies, identifies key contacts, and generates personalized emails, reducing manual effort and improving outreach efficiency.

**Major Learning Outcomes :** These projects provided hands-on experience in building scalable, production-grade tools across both web and mobile platforms. Through the Rumble Admin Panel, there was significant learning in frontend state management, API integration, and creating respo

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment at Rusk Media is flexible, collaborative, and supportive. The company encourages a relaxed work culture where interns and employees are assigned tasks based on project requirements and individual skill sets. While work is prioritized according to deadlines, there is no rigid micromanagement, which allows for independent opportunity-solving and learning. Flexible working hours are a significant advantage, along with the company's unlimited paid time-off policy, which promotes a healthy work-life balance. Although employees have the option to work from home without prior approval, regular office presence is encouraged to maintain team bonding and communication. The office atmosphere is informal and approachable, with colleagues who are friendly, engaging, and willing to offer help when needed.

**Academic courses relevant to the project :** Database Systems, Software Engineering

**PS-II STATION : SAMSUNG SEMICONDUCTOR INDIA RESEARCH ,BENGALURU**

**FACULTY NAME: SWAPNA S KULKARNI**

**STUDENT NAME: VAIYATA MITUL SHAILESHBHAI (2023H1030088H)**



## **PS-II Project Title: OpenCL Integration in Open-Source Camera App**

**Short Summary of work done during PS-II :** This project focused on integrating OpenCL into an open-source Android camera app to accelerate image processing tasks by leveraging GPU computation. The main goal was to address the growing computational demands of modern camera features—such as real-time filters and object erasers—which often overwhelm traditional CPU-based processing on mobile devices. The work involved analyzing the camera app’s workflow, embedding OpenCL components, and modifying the processing pipeline to execute image effects (grayscale, sepia, inversion, and object eraser) as OpenCL kernels on the GPU. A significant part of the project was devoted to overcoming Android-specific challenges, like limited native OpenCL support and device compatibility aspects. After successful integration, the performance was benchmarked using static images, revealing speedups of 14x to 42x over CPU-only implementations, depending on the effect. However, when applying effects in real-time camera previews, performance dropped due to data transfer overheads between CPU and GPU memory—a known bottleneck in mobile GPU computing. The project not only demonstrated substantial improvements in processing speed for static images but also highlighted the technical hurdles that remain for real-time applications. The work lays a strong foundation for future enhancements, such as more advanced effects and AI-powered features, and establishes best practices for heterogeneous computing in mobile environments. Overall, it shows that OpenCL can make sophisticated image processing practical on Android devices, paving the way for richer, more responsive camera apps.

**Tool used (Development tools - H/w, S/w) :** Visual Studio, Android Studio, OpenCL

**Objectives of the project :** The objective of this project is to greatly improve image processing in open-source Android camera applications by leveraging OpenCL to delegate intensive computational tasks to GPUs.

**Major Learning Outcomes :** Gained hands-on expertise in integrating OpenCL with Android camera applications, enabling efficient GPU-accelerated image processing and achieving up to 42x speedup over CPU-based methods. Developed practical skills in optimizing parallel algorithms.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** At Samsung Semiconductor India Research, the working environment is dynamic, collaborative, and results- driven. Employees are encouraged to take ownership of their work, while teamwork is at the core of the company’s success. Open communication, respect for diverse perspectives, and a strong sense of mutual support are foundational elements that help drive a positive and inclusive culture. The company fosters an environment where creativity and innovation are highly valued, allowing employees to experiment, learn, and grow professionally. Samsung Semiconductor India

Research's focus on work-life balance ensures that individuals are supported in both their personal and professional lives, creating a well-rounded, motivated team.

**Academic courses relevant to the project :** Operating Systems, Computer Architecture, DSA

**PS-II STATION : SAMSUNG SEMICONDUCTOR INDIA RESEARCH ,BENGALURU**

**FACULTY NAME:** SWAPNA S KULKARNI

**STUDENT NAME:** RIDDHI JAGDISH NARKAR (2023H1030095H)

Student Write-up

**PS-II Project Title:** Dynamic Short stroking Client SSDs

**Short Summary of work done during PS-II :** Made shortstorking in Client SSDs dynamic

**Tool used (Development tools - H/w, S/w) :** VS, VS Code

**Objectives of the project :** To make static short stroking dynamic

**Major Learning Outcomes :** Understood the inner architecture of Samsung SSDs

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Expected to understand their architecture and make a process more optimized.

**Academic courses relevant to the project :** Yes

**PS-II STATION : SAMSUNG SEMICONDUCTOR INDIA RESEARCH ,BENGALURU**

**FACULTY NAME:** SWAPNA S KULKARNI

**STUDENT NAME:** BENNET MATHEW (2023H1230161P)

Student Write-up

**PS-II Project Title:** Formal Verification

**Short Summary of work done during PS-II :** First I had to study the basic theory behind Formal Verification and SVA. Then I understood the rtl design of a demanding ware module. Then I applied Formal Verification using SVA and Jasper Gold tool

**Tool used (Development tools - H/w, S/w) :** JasperGold FPV tool, SimVision tool

**Objectives of the project :** Perform Formal Verification for different modules using System Verilog Assertions and JasperGold FPV tool

**Major Learning Outcomes :** Formal Verification

**Details of Papers/patents :** Nil

**Brief Description of working environment, expectations from the company :** Goog support from mentor and manager, all team members were helpful, I was able to access all tools required and rtl codes.

**Academic courses relevant to the project :** VLSI Testing and Testability

**PS-II STATION : SAMSUNG SEMICONDUCTOR INDIA RESEARCH ,BENGALURU**

**FACULTY NAME:** SWAPNA S KULKARNI

**STUDENT NAME:** MEKALA SRAVAN KUMAR (2023H1400115H)

Student Write-up

**PS-II Project Title:** Testbench creation for OUTIF

**Short Summary of work done during PS-II :** I have created a testbench for the required module and then tested it with respective input combinations and also used APB protocol to access the internal registers.

**Tool used (Development tools - H/w, S/w) :** Cadence Xcelium

**Objectives of the project :** To create a testbench for a module in verilog

**Major Learning Outcomes :** Verilog and protocols(APB)

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Work environment is encouraging and helpful.

**Academic courses relevant to the project :** VLSI Architecture

**PS-II STATION : SARVAM AI ,BENGALURU**

**FACULTY NAME:** K VENKATASUBRAMANIAN .

**STUDENT NAME:** SRIVATSAV RAMARAJU . (2020B3A71968P)

Student Write-up

**PS-II Project Title:** Go-to-Market, Strategy

**Short Summary of work done during PS-II :** Interesting company to work in, gives high amount of exposure to people who work there.

**Tool used (Development tools - H/w, S/w) :** Prompt Engineering

**Objectives of the project :** Sales, Go-to-Market Strategy, AI solution development

**Major Learning Outcomes :** Corporate Culture

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Fair environment.

**Academic courses relevant to the project :** Yes

**PS-II STATION :** SCAPIA TECHNOLOGY PVT.LTD., - BUSINESS ANALYST ,BENGALURU

**FACULTY NAME:** ARINDAM ROY .

**STUDENT NAME:** SUKHANROOP KAUR BRAR . (2020B2A31922P)

Student Write-up

**PS-II Project Title:** Travel Growth Intern

**Short Summary of work done during PS-II :** During my Practice School-II (PS-II) at Scapia Technology Pvt.Ltd., , I worked on developing data-driven solutions to enhance user engagement and optimize business performance across the travel domain. My primary focus was on building automated dashboard systems to track key metrics such as app visits, bookings, average order value (AOV), and user segmentation across Flights, Stays, Trains, and Buses. These dashboards provided real-time insights and supported the business team in making informed decisions. I contributed significantly to both the Flights and Stays verticals by creating Top-of-Funnel (TOFU) dashboards, which helped identify drop-off points in the user journey. I also led the development of high-performing widgets like the Flights Deals Scanner and Stays Signatures, which drove a notable increase in international bookings and high-AOV stays, respectively. In the pricing space, I benchmarked rates against major OTAs like MakeMyTrip and ClearTrip and applied the Meet, Beat & Lose methodology to refine our pricing strategy. In addition, I conducted in-depth booking pattern analysis in the Trains and Buses verticals, segmenting users by behavior (new vs. repeat) and travel trends. The insights generated supported personalized campaign strategies

and improved cohort targeting. Overall, the internship provided me with hands-on experience in analytics, business intelligence, and cross-functional collaboration, enabling me to apply theoretical knowledge to solve real-world business opportunities effectively.

**Tool used (Development tools - H/w, S/w) :** SQL, Python, Figma, MS Excel

**Objectives of the project :** Develop automated dashboard systems for real-time performance tracking. Benchmark performance and pricing against major OTAs (e.g., MakeMyTrip, ClearTrip). Create personalized marketing campaigns for different user segments. Increase user engagement through optimized in-app widgets and user funnels. Monitor and analyze booking patterns across Flights, Stays, Trains, and Buses. Support Monthly Business Reviews with detailed reports and actionable insights.

**Major Learning Outcomes :** Through this project, I gained hands-on experience in developing automated dashboards to track performance across various travel verticals, enhancing my technical and analytical skills. I learned to analyze user behavior using funnel analytics, identify d

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The work environment was pretty fast-moving and all about using data to make smarter decisions. My main job was to create automated dashboards that tracked how different parts of the travel business were doing and helped spot areas to improve. I worked closely with marketing, product, and data teams, so good communication and teamwork were really important. Part of the job was also checking out what competitors like MakeMyTrip and ClearTrip were doing, especially around pricing and strategies. I used things like cohort analysis and user segments to help create targeted campaigns that boosted conversions. The company really valued data-backed insights, so I regularly made reports to support business reviews and help guide decisions. Overall, it was a collaborative place where learning and improving were encouraged. The company expected me to bring insights that would help the business grow and make better choices.

**Academic courses relevant to the project :** Yes

**PS-II STATION : SEDEMAC MECHATRONICS LIMITED ,PUNE**

**FACULTY NAME: MANOJ SUBHASH KAKADE .**

**STUDENT NAME: PRIYANK KHANDELWAL (2021A3PS2450G)**

Student Write-up

**PS-II Project Title: Dual Output Flyback Converter Design**

**Short Summary of work done during PS-II :** This project focused on the design and analysis of a **\*\*dual-output flyback converter\*\*** capable of delivering **\*\*6W each at 12V and 20V\*\*** from a **\*\*400V DC input\*\***, following a comparative study of various DC-DC converter topologies. The design prioritized addressing **\*\*cross-regulation challenges\*\*** stemming from transformer leakage inductance by optimizing winding coupling and implementing weighted feedback compensation. To mitigate **\*\*voltage spikes\*\*** across the MOSFET, an **\*\*RCD snubber circuit\*\*** was carefully designed, ensuring minimal stress on switching components. The converter's operational mode (DCM/CCM) was selected based on load requirements, favoring **\*\*DCM for light loads\*\*** due to its faster transient response and simpler control, while acknowledging its higher peak currents. Theoretical calculations and simulation results validated the design, confirming stable dual-output regulation, efficient power delivery, and compliance with safety standards. The project successfully balanced trade-offs between efficiency, component stress, and control complexity, providing a robust solution for isolated power supply applications.

**Tool used (Development tools - H/w, S/w) :** Pcan, orcad pspice simulator, pid tuner, simulink,

**Objectives of the project :** Develop a power supply for powering different components including microcontroller, drivers

**Major Learning Outcomes :** The impact of dual secondary windings, operational differences between Discontinuous Conduction Mode (DCM) and Continuous Conduction Mode (CCM), and key design considerations. When using dual secondary windings, parameters such as transformer design, output

**Details of Papers/patents :** no patents published

**Brief Description of working environment, expectations from the company :** This experience taught me the value of planning, prioritizing, and maintaining consistency in performance. I also learned to adapt to changing situations effectively.

**Academic courses relevant to the project :** Power Electronics, Analog Electronics

**PS-II STATION : SEDEMAC MECHATRONICS LIMITED ,PUNE**

**FACULTY NAME: MANOJ SUBHASH KAKADE .**

**STUDENT NAME: MANISH PARLA (2021AAPS1313G)**

Student Write-up

**PS-II Project Title:** Migrating GCU Firmware to RTOS

**Short Summary of work done during PS-II :** Migrated the firmware of a product in sedemac to an rtos based system. This involved first evaluating out rots options and then building the firmware in the appropriate rtos

**Tool used (Development tools - H/w, S/w) :** VSCode, renesas cs+

**Objectives of the project :** To migrate GCU Firmware to an rots based system

**Major Learning Outcomes :** Software development

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** Fun, professional, balanced.

**Academic courses relevant to the project :** MuP, Embedded systems

**PS-II STATION : SHELADIA ASSOCIATES, INC. ,SECUNDERABAD**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA .**

**STUDENT NAME: PRATHI VENKATA SAI AKASH (2023H1300047H)**

Student Write-up

**PS-II Project Title:** Geometric Highway Design

**Short Summary of work done during PS-II :** During my internship at a transportation engineering company specializing in highways , I was actively involved in various stages of design and planning processes. My primary tasks included assisting in the preparation of highway alignment drawings, cross-sections, and profiles using software such as AutoCAD and Civil 3D. I contributed assisting to the geometric design of roads, incorporating elements like horizontal and vertical curves, superelevation, and widening based on IRC guidelines. Field exposure was an important part of the internship. I observed surveying methods, earthwork operations, and construction practices. This helped me connect theoretical knowledge with practical implementation. In addition, I assisted in preparing project documentation, including quantity estimates, design reports, and bill of quantities (BOQ). I learned how multidisciplinary coordination between transportation, structural, and environmental teams is crucial to successful project delivery. The internship helped me develop technical skills, improve my understanding of real-world engineering practices, and build confidence in professional communication and teamwork. Overall, the experience provided me with a solid foundation for a future career in highway and structural engineering.

**Tool used (Development tools - H/w, S/w) :** CIVIL 3D, Google Earth Pro, GIS

**Objectives of the project :** Highway Design Principles, Technical Skill Development and Understanding of Project Workflow

**Major Learning Outcomes :** Technical Skills Development, Project Flow, Design Principles, Exposure, Communication, Collaboration, Time Management, Teamwork, Professionalism and Career Insights.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Working environment in a transportation engineering company specializing in highways and structures is typically dynamic, collaborative, and detail-oriented. Interns and employees often work in multidisciplinary teams that include civil engineers, structural engineers, CAD technicians, planners, and project managers. The office environment combines design work using software such as AutoCAD, Civil 3D, and STAAD.Pro with field visits for site assessments, surveys, or construction supervision.

Interns are expected to show professionalism, punctuality, and a willingness to learn. Attention to detail, especially when dealing with drawings, technical reports, and calculations, is crucial. Safety, sustainability, and adherence to national and international standards (like IRC, MORTH) are fundamental in all tasks.

Company expects interns to:

Communicate effectively within the team and with clients or contractors. Be proactive in taking responsibility for assigned tasks.

Understand and apply engineering principles in real-world scenarios. Show flexibility and adaptability to changing project needs and timelines.

Company values soft skills such as teamwork, time management, and a positive attitude toward feedback. A strong work ethic and ability to work under deadlines are critical. Overall, company aims to provide a supportive learning environment where interns can gain hands-on experience, contribute meaningfully to projects, and build a strong foundation for their engineering careers.

**Academic courses relevant to the project :** Geometric Highway Design, pavement analysis and design and traffic analysis.

**PS-II STATION : SIEMENS EDA INDIA PVT.LTD., ,NOIDA**

**FACULTY NAME: RAJESH KUMAR TIWARY .**

**STUDENT NAME: PRABHANSHU TRIPATHI (2021A7PS2065G)**

Student Write-up



**PS-II Project Title:** Optimization and debugging in Questa Sim

**Short Summary of work done during PS-II :** Worked on the Questa VHDL tool at Siemens EDA, focusing on debugging and memory optimization in C. Handled aspects related to parallel process management and analyzed failing test cases to identify and resolve optimization-related bugs across different modules.

**Tool used (Development tools - H/w, S/w) :** Questa Sim, GNU debugger, perforce, blastX

**Objectives of the project :** To build a infra to print the optimization summary, to debug 250 failures and solve them

**Major Learning Outcomes :** Strengthened debugging and memory optimization skills in C. Gained hands-on experience working with large-scale codebases.  
Improved parallel process management techniques.  
Developed a deeper understanding of VHDL tool flow and verification.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The work environment is really nice and collaborative. Seniors and managers are supportive and are

**Academic courses relevant to the project :** OOPS, Compiler construction, Digital Design, Computer Architecture

**PS-II STATION : SIEMENS ENERGY, GURUGRAM**

**FACULTY NAME:** SUDEEP KUMAR PRADHAN .

**STUDENT NAME:** ADITYA AGRAWAL . (2020B5A42010P)

Student Write-up

**PS-II Project Title:** Application of AI/ML to optimize rotor balancing in Industrial Steam Turbines

**Short Summary of work done during PS-II :** Created database schema and implemented using PostgreSQL to serve as a central database for multiple rotor systems across the company subsidiaries, and also serve as a data funnel for parameters to be used in Machine Learning model. Implemented several ml and mathematical models to optimize rotor balancing process.

**Tool used (Development tools - H/w, S/w) :** Python, Excel, PostgreSQL, ElectronJS

**Objectives of the project :** To reduce time taken for rotor balancing process in industrial settings

**Major Learning Outcomes :** Understanding of balancing, rotor geometry, influence coefficient method, Machine Learning, Artificial Intelligence, AI Agents, Databases

**Details of Papers/patents :** Influence coefficient method, novel way of unsupervised deep learning to rotor balancing, particle swarm optimization, physics guided neural networks.

**Brief Description of working environment, expectations from the company :** Structured work environment, weekly and daily meetings for progress review, friendly and helpful seniors and managers. A really good learning environment.

**Academic courses relevant to the project :** Vibrations and Control, Machine Learning, Artificial Intelligence.

**PS-II STATION : SIEMENS ENERGY, GURUGRAM**

**FACULTY NAME: SUDEEP KUMAR PRADHAN .**

**STUDENT NAME: PEDDIREDDY VISHNU VARDHAN REDDY (2021A4PS1199G)**

Student Write-up

**PS-II Project Title:** Designing a Feasible System for a Sustainable Methanol Production via Carbon Capture and Rotor Balancing

**Short Summary of work done during PS-II :** As part of the methanol production project, I was responsible for designing the process flow diagram (PFD), mapping out the key unit operations, flow directions, and control points essential for the conversion of syngas to methanol. This involved understanding the chemical process, integrating mechanical constraints, and ensuring the layout was scalable and logically structured. In parallel, I conducted research into rotor balancing methods used in rotating equipment critical to the process, such as compressors and pumps. I reviewed existing techniques and identified areas of improvement in the company's current analysis approach. Building on this, I improved the in-house rotor balancing code, enhancing its ability to process vibration data more accurately and optimizing its logic for influence coefficient calculation. This allowed for more precise correction mass estimation, contributing to better machine reliability. The project allowed me to bridge core mechanical engineering concepts with practical coding and system diagnostics, while contributing meaningfully to both the process design and the supporting mechanical systems.

**Tool used (Development tools - H/w, S/w) :** Matlab, Visual Studio Code

**Objectives of the project :** To design and optimize a process flow for the production of methanol from syngas or related feedstocks. To enhance the accuracy and efficiency of vibration analysis through modifications to the existing rotor balancing software.

**Major Learning Outcomes :** Developed a deeper understanding of methanol production technologies, including key thermodynamic and mechanical considerations.  
Improved knowledge of rotor dynamics and various rotor balancing techniques, particularly their impact on equipment reliability.

### **Details of Papers/patents :**

**Brief Description of working environment, expectations from the company :** The working environment was dynamic, fast-paced, and collaborative, reflecting the nature of a growing company engaged in process design and industrial innovation. The environment promoted a hands-on, learning-by-doing approach, where contributions were valued regardless of the domain, as long as they pushed the project forward.

This experience helped sharpen both my technical and professional adaptability in a real-world engineering setting.

Expectations from the company were clear and performance-driven.

**Academic courses relevant to the project :** Vibration and Control

**PS-II STATION : SIEMENS ENERGY, GURUGRAM**

**FACULTY NAME: SUDEEP KUMAR PRADHAN .**

**STUDENT NAME: LAVANYA ANANTHAN (2021A4PS2332G)**

Student Write-up

### **PS-II Project Title: Waste Heat Recovery**

**Short Summary of work done during PS-II :** During my internship at Siemens Energy in the IHS&SSP department, I worked on Waste Heat Recovery (WHR) boiler projects, contributing to various stages of design and documentation. I interpreted technical drawings such as P&IDs, HMBDs, and GA layouts to understand process flow and system configuration. My tasks included performing structural load calculations, analyzing insulation parameters, and assisting in the preparation of line schedules and valve lists. I reviewed tender documents and vendor datasheets to ensure alignment with project requirements and industry standards like ASME. I also contributed to the preparation of technical offers and participated in discussions related to project feasibility and layout planning. Through coordination with cross-functional teams and exposure to real-time site feedback and 3D model reviews, I gained valuable insights into practical engineering challenges. The internship provided hands-on experience and significantly enhanced my understanding of industrial boiler systems and the overall project execution workflow.

**Tool used (Development tools - H/w, S/w) :** Microsoft Excel, AutoCAD

**Objectives of the project :** The objective of the project was to gain practical, hands-on experience in the design and execution of Waste Heat Recovery (WHR) systems within the IHS&SSP department at Siemens Energy. The focus was on understanding the working principles and engineering aspects of WHR boilers used in thermal power plants. A key aim was to apply academic knowledge—especially from thermodynamics, fluid mechanics, and heat transfer—in solving real industrial challenges. The project also involved interpreting and working with essential technical documents such as Piping and Instrumentation Diagrams (P&IDs), Heat and Mass Balance Diagrams (HMBDs), General Arrangement (GA) drawings, and Bills of Materials (BoMs). Understanding material selection, insulation parameters, and structural calculations were also part of the learning. Additionally, the project aimed to provide familiarity with industry standards and codes like ASME, and to understand how these are implemented in mechanical system design. Another important objective was to learn the workflow of project execution— from design and documentation to vendor coordination and commissioning. Exposure to tender preparation and multi-disciplinary coordination with civil, electrical, and instrumentation teams helped build a holistic understanding of project lifecycle management. Overall, the project aimed to bridge classroom learning with industry application through meaningful technical contributions.

**Major Learning Outcomes :** The internship provided a deep understanding of how theoretical concepts are applied in real-world engineering projects, particularly in the design and execution of Waste Heat Recovery (WHR) systems. I learned to interpret and work with essential technical things.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Siemens Energy was professional, structured, and highly conducive to learning. The IHS&SSP department fostered a collaborative culture where guidance was readily available, and interns were encouraged to take initiative and contribute meaningfully. I was involved in real project tasks, which helped build both confidence and technical competence. The team was supportive and open to questions, making it easier to understand complex engineering workflows and industry practices. My expectations from the company were to gain hands-on experience in core mechanical engineering areas, particularly related to power plant systems, and to understand how large-scale projects are executed in an industrial setting. Siemens Energy met these expectations by providing exposure to various stages of the project lifecycle, including design, documentation, vendor coordination, and technical reviews. The experience allowed me to apply theoretical knowledge in practical scenarios, improve my opportunity-solving approach, and understand the interdisciplinary nature of industrial projects.

**Academic courses relevant to the project :** Thermodynamics, Applied Thermodynamics, Prime Movers and Fluid Machines.

**PS-II STATION : SIEMENS ENERGY, GURUGRAM**

**FACULTY NAME: SUDEEP KUMAR PRADHAN .**

**STUDENT NAME: ADITYA BANDYOPADHYAY (2021A4PS2708G)**

Student Write-up

**PS-II Project Title:** Design & Thermo-Mechanical Validation of Turbomachinery Systems

**Short Summary of work done during PS-II :** My PS-II at Siemens Energy was a game-changer for me. I started with designing a CO<sub>2</sub>-to-methanol process, diving into reaction kinetics and energy integration. From modeling catalysts to optimizing conversion, the first few weeks built my foundation in process-level design. Then came the real mechanical grind — I was tasked with designing a hydrogen electrolyze stack that could seal under pressure and operate reliably. This required detailed tolerance analysis, clamping force calculations, and smart material choices. I studied cycle-level integration strategies such as reheat, regenerative feedwater heating, and pressure optimization to improve network and reliability. The work integrated thermodynamic modeling, mechanical validation, and system-level thinking — preparing me to contribute meaningfully in sustainable mechanical system design.

**Tool used (Development tools - H/w, S/w) :** MATLAB, REFPROP, DWSim, ANSYS Workbench, SolidWorks, MS Excel; Siemens Internal Design Templates, BOM systems, P&IDs

**Objectives of the project :** Project I: To design a CO<sub>2</sub>-to-Methanol synthesis process integrated with hydrogen electrolysis; Project II: To optimize the mechanical stack of an electrolyze for gas-tight performance; Project III: To simulate and validate a recuperator under supercritical CO<sub>2</sub> operating conditions; Project IV: To study turbine blade design, loss mechanisms, control strategies, and cycle-level thermodynamic trade-offs.

**Major Learning Outcomes :** •Not just technical, but developed multi-domain engineering intuition across process, thermal, and mechanical systems

- Understood turbine efficiency losses and the impact of blade geometry
- Gained experience in material selection and design-for-Manu

**Details of Papers/patents :** None officially submitted as of now under Siemens Energy R&D. (Patent potential under discussion for design modifications in the electrolyze sealing & design logic)

**Brief Description of working environment, expectations from the company :** Siemens Energy had the perfect mix of structure and freedom. The culture focused less on clocking hours & numbers and more on what you and your creation. If that is your cup of tea, this is the best place.

I was part of the R&D transformation team (very lucky)— where ideas were taken seriously, and so was execution. Every task, from a reactor model to a CFD simulation, had to be technically justified and clearly communicated. I learned to take ownership, defend my ideas, and accept feedback with openness.

There were weekly design reviews, open technical discussions, and plenty of room to learn especially in my team. My mentor and colleagues treated me with trust and respect, which made me want to deliver my best every week.

It was intense at times, but deeply rewarding. I came out of it more confident, more curious, and incredibly grateful for the experience.

**Academic courses relevant to the project :** • Applied Thermodynamics

- Heat and Mass Transfer
- DME, AMOS
- Applied Mechanics
- Simulation & Modelling (Control Systems-Robotics Minor)

**PS-II STATION : SIEMENS ENERGY, GURUGRAM**

**FACULTY NAME: SUDEEP KUMAR PRADHAN .**

**STUDENT NAME: ASHMIKA JAIN (2021A4PS2829G)**

Student Write-up

**PS-II Project Title: Waste heat recovery**

**Short Summary of work done during PS-II :** During my PS-II at Siemens Energy, I worked in the proposal engineering division with a focus on power plant and waste heat recovery (WHR) systems. I contributed to the preparation of technical offer documents for new tenders by aligning Siemens' design standards with specific client requirements. My role involved creating and updating valve schedules, performing line sizing and duct weight calculations, and drafting technical specifications for key equipment. I also assisted in pressure drop calculations for duct systems and participated in technical discussions with vendors to gather budgetary quotes. In parallel, I cross-checked general arrangement (GA) drawings from suppliers to ensure compliance with project requirements. I gained exposure to interdisciplinary review processes by attending 3D model review sessions, which provided a clearer understanding of equipment layout, system integration, and practical design challenges. The internship deepened my understanding of how theory translates into large-scale industrial energy solutions and helped me develop an opportunity-solving mindset grounded in real-world constraints.

**Tool used (Development tools - H/w, S/w) :** Ms.Word, AutoCAD, Excel, E-dwg Viewer

**Objectives of the project :** To assist in the preparation and optimization of technical proposal documents for large-scale energy projects. To understand and align Siemens Energy's design standards with client-specific requirements. To support engineering calculations and documentations such as valve schedules, pressure drop estimations, and duct weight calculations. To gain exposure to project lifecycle, vendor coordination, and interdisciplinary collaboration.

**Major Learning Outcomes :** Practical application of core mechanical engineering concepts in energy system design.

Improved understanding of engineering documentation and compliance review processes. Familiarity with proposal development cycle and client-vendor interaction.

### **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Siemens Energy was highly collaborative and professional, reflecting the company's emphasis on innovation, safety, and technical excellence. I was integrated into a multidisciplinary team where engineers, designers, and project managers worked closely to deliver optimized energy solutions for clients across the globe. Open communication, process discipline, and knowledge sharing were central to the workplace culture. Despite being an intern, I was trusted with meaningful responsibilities and encouraged to contribute to live projects, which was both motivating and empowering.

The company expected interns to be proactive, detail-oriented, and receptive to feedback. I was expected to quickly understand technical concepts, work independently on assigned tasks, and seek clarifications where needed. Punctuality, documentation rigor, and accountability were consistently emphasized. Regular reviews and discussions with mentors ensured I stayed aligned with the project goals and continued to learn throughout the internship.

**Academic courses relevant to the project :** Thermodynamics, PMFM, Fluid Mechanics, MOS

### **PS-II STATION : SIEMENS ENERGY, GURUGRAM**

**FACULTY NAME:** SUDEEP KUMAR PRADHAN .

**STUDENT NAME:** ISHA BANDYOPADHYAY (2021A4PS2888G)

Student Write-up

**PS-II Project Title:** Steel-Concrete Composite vessel, Mechanical Validation Of Inner and Outer Casing

**Short Summary of work done during PS-II :** Worked on designing a storage system for CAES System and made designs and checked them for stability using Abaqus.

**Tool used (Development tools - H/w, S/w) :** Excel, PowerPoint , Abaqus

**Objectives of the project :** Design and mechanically check Inner and outer casing of steam turbine

**Major Learning Outcomes :** learn the applications of Mechanics of solids and Material science

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Good working environment with great learning experience. Everyone is really friendly and always there to help.

**Academic courses relevant to the project :** Mechanics of solids , Material science

**PS-II STATION : SIEMENS ENERGY, VADODARA**

**FACULTY NAME: SUDEEP KUMAR PRADHAN .**

**STUDENT NAME: ANANYA SARASWAT . (2020B1A40616P)**

Student Write-up

**PS-II Project Title:** Understanding the additive manufacturing process of steam turbine blades using 17-4 PH stainless steel

**Short Summary of work done during PS-II :** Worked on a review paper on additive manufacturing of steam turbine blades

**Tool used (Development tools - H/w, S/w) :** Thermo calc

**Objectives of the project :** Work on nitty-gritties associated with AM of steam turbine blades, work on review paper

**Major Learning Outcomes :** Additive manufacturing, testing and quality checks associated, steam turbine manufacturing and process associated on assembly line

**Details of Papers/patents :** Review paper to be sent out to conferences suitable for this domain

**Brief Description of working environment, expectations from the company :** Working environment is good and friendly. The people are helpful and sweet.



**Academic courses relevant to the project :** Additive manufacturing, Mechanisms and machine, Design of machine elements.

**PS-II STATION :** SIEMENS ENERGY, VADODARA

**FACULTY NAME:** SUDEEP KUMAR PRADHAN .

**STUDENT NAME:** ANUSHKA P NAIR (2020B5A41624G)

Student Write-up

**PS-II Project Title:** Standardizing Gearbox Couplings in Turbine Systems Using Retrofit Data

**Short Summary of work done during PS-II :** This project aims to develop a standardized approach for selecting couplings in turbine-generator gearbox trains, leveraging historical performance data from past steam turbine projects. The optimization of coupling selection is crucial for enhancing the reliability, efficiency, and longevity of power generation systems. By analyzing retrofit data and operational performance metrics, this project seeks to identify key parameters that influence coupling effectiveness and durability in various operational conditions. Historical data from multiple steam turbine installations will be collated and analyzed to discern patterns and correlations between coupling specifications and system performance. Factors such as power output, rotational speed, short circuit torque, and environmental conditions will be considered in the analysis. The expected outcome of this project is a standardized protocol for coupling selection that can be applied across a wide range of turbine-generator configurations. This standardization is anticipated to streamline the design process.

**Tool used (Development tools - H/w, S/w) :** Python, MS Excel, Excel VBA

**Objectives of the project :** This project aims to develop a standardized approach for selecting couplings in turbine-generator gearbox trains, leveraging historical performance data from past steam turbine projects. Historical data from multiple steam turbine installations will be collated and analyzed to discern patterns and correlations between coupling specifications and system performance. The expected outcome of this project is a standardized protocol for coupling selection that can be applied across a wide range of turbine-generator configurations. This standardization is anticipated to streamline the design process.

**Major Learning Outcomes :** Excel VBA, Python Automation

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Worked in discussion room so reduced interactions with others. Very friendly environment. Clear

expectations and gave me smaller projects as well. However manual data entry work was given as well.

**Academic courses relevant to the project :** Business Communication

**PS-II STATION : SIEMENS ENERGY, VADODARA**

**FACULTY NAME:** SUDEEP KUMAR PRADHAN .

**STUDENT NAME:** SHREYAN SANDEEP KANVINDE (2021A4PS2296G)

Student Write-up

**PS-II Project Title:** Base Frame Design

**Short Summary of work done during PS-II :** The project revolved around solving the aspect faced by my team on modelling base frames of different designs for various clients. The team had to create an entirely new CAD model of a base frame for a particular client in spite of having multiple similar and standard parts. For this i was asked to create a common base frame model which could be customized to create various models of base frames with minor changes in dimension and assembly. I looked at the different designs and included the common parts and components in mine to create such a model.

**Tool used (Development tools - H/w, S/w) :** Siemens NX

**Objectives of the project :** To create a customizable design of base frame

**Major Learning Outcomes :** Learnt base frame design, Siemens NX software

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** My manager was very calm and helpful. The seniors in my team and existing employees were supportive and answered all my doubts related to the work process.

**Academic courses relevant to the project :** CAD/CAM

**PS-II STATION : SIEMENS ENERGY, VADODARA**

**FACULTY NAME:** SUDEEP KUMAR PRADHAN .

**STUDENT NAME:** ADITYA LALIT SHRIPAD (2021A4PS2711G)

Student Write-up

**PS-II Project Title:** Structural Analysis of Turbine Foundation

**Short Summary of work done during PS-II :** Carried out static and dynamic structural load analysis of turbine foundation to ensure safety.

**Tool used (Development tools - H/w, S/w) :** ANSYS Mechanical

**Objectives of the project :** Carry out static and dynamic structural load analysis

**Major Learning Outcomes :** Learned ANSYS Workbench and Mechanical to carry out analysis and ensured safety of foundation.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Using ANSYS, performed static and dynamic structural analysis of the turbine foundation deck to check its structural integrity  
Applied different load combinations to evaluate its performance in various operating conditions  
Cross verified resulting stresses, strains and deformation with material properties according to industry standard tolerances and ensured that the results were within limits  
As part of Modifications & Upgrades, evaluated the existing system for potential upgrades or improvement areas.  
Applied the proposed changes for upgrades and repeated the process to analyze under the new loading conditions  
Learned in brief the NX software and its application in this domain  
Learned about industrial steam turbines, it's operation theory and working principles.  
Learned in brief about the technical and commercial aspect of the business in project execution.

**Academic courses relevant to the project :** Mechanics of Solids, CAD

**PS-II STATION : SIEMENS INDUSTRY SOFTWARE INDIA PVT. LTD, PUNE ,PUNE**

**FACULTY NAME: CHETANA ANOOP GAVANKAR .**

**STUDENT NAME: DANAI ADITYA DHANANJAY (2021A7PS2509G)**

Student Write-up

## **PS-II Project Title: AI Feature Introduction in Part-Design Alignment**

**Short Summary of work done during PS-II :** During my PS-II at Siemens Digital Industries Software, I worked on enhancing the manual alignment process between parts (EBOM) and CAD designs (DBOM) in Teamcenter PLM. The project focused on developing the "Alignment Candidates Suggestions" feature to streamline Part-CAD and Occurrence Alignment. I contributed to both server-side logic and client-side UI. On the backend, I implemented property- based matching using identifiers like part numbers, names, and classification properties. I also worked on deterministic algorithms for rule-based suggestions and explored probabilistic approaches using similarity search and LLMs for fuzzy matching (e.g., matching "HEX NUT" with "HEXAGON NUT"). On the frontend, I helped design and integrate UI components such as the Suggestions Tab and Guided Alignment Update Tab for an improved user experience. These enhancements allow users to manually review and align suggested design-part matches more efficiently. The feature reduces manual effort, improves data accuracy, and enhances workflow efficiency. The project lays the groundwork for future improvements using advanced AI and chat- based alignment agents. This internship provided valuable experience in real-world enterprise software development, algorithm design, and AI integration, along with exposure to PLM concepts and professional collaboration.

**Tool used (Development tools - H/w, S/w) :** Software Tools: Teamcenter – PLM platform for BOM and CAD data management Eclipse / Visual Studio – for writing backend code (Java/C++) Active Workspace (AW) Client – Teamcenter’s web client for UI integration SOA (Service- Oriented Architecture) – for

**Objectives of the project :** The primary objective of the project titled "Introducing Alignment Candidates Suggestions Feature in DBOM (Design) - EBOM (Part) Alignment" was to: Enhance the Teamcenter User Interface: Improve the manual alignment process between parts (EBOM) and CAD designs (DBOM) by making it more intuitive and user-friendly. Introduce the "Alignment Candidates Suggestions" Feature: Provide intelligent suggestions for aligning parts and designs. Assist users in performing both Part-CAD alignment and Occurrence alignment efficiently. Simplify Alignment Workflows: Automate repetitive alignment tasks. Reduce manual effort and alignment errors. Improve Accuracy and Efficiency: Use a combination of property-based matching, deterministic algorithms, and probabilistic (AI-based) heuristics to suggest matches. Leverage hierarchical context, naming conventions, and metadata for better alignment prediction. Lay the Foundation for Future Enhancements: Enable integration with LLMs, similarity search, and chat-based interfaces for more advanced alignment features.

**Major Learning Outcomes :** Understood PLM systems – especially Teamcenter, DBOM–EBOM alignment.

Worked on full-stack development – server-side SOA and client-side UI. Applied matching algorithms – deterministic and probabilistic (AI-based). Used AI and similarity search – to imp

## **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Siemens Digital Industries Software, Pune, was highly professional, collaborative, and conducive to learning. I was part of a team working on Teamcenter PLM, where I closely interacted with experienced professionals including my mentor, Tech Lead Asheesh Arora. The team maintained a culture of knowledge sharing, timely feedback, and technical excellence.

Communication was smooth via regular sync-ups and reviews. I was given clear objectives and the freedom to explore and contribute effectively to both backend and UI components of the project. The environment encouraged proactive opportunity-solving, innovation, and a strong understanding of enterprise-scale software development.

The company expected interns to be self-motivated, quick learners, and capable of handling responsibilities independently. Emphasis was placed on writing clean, maintainable code and following software development best practices. Timely delivery, ownership of tasks, and thorough documentation were also key expectations.

Overall, Siemens provided an excellent platform to apply academic knowledge to real-world opportunities while developing industry-relevant skills in software development and product lifecycle management.

**Academic courses relevant to the project :** OOPS, DSA, DBMS, ML, AI, Computer Programming, CN

**PS-II STATION : SIFIVE INDIA PVT LTD ,BENGALURU**

**FACULTY NAME: A REKHA .**

**STUDENT NAME: PAURAS SUNIL PATIL . (2020B2A30704P)**

Student Write-up

**PS-II Project Title: Power Management Design Verification**

**Short Summary of work done during PS-II :** During PS-II at SiFive, significant contributions were made in the field of power management verification for RISC-V-based designs. The work focused on bringing up and verifying Unified Power Format (UPF) configurations, ensuring proper integration of power intent for cluster configurations. This included tasks like debugging and triaging aspects in RTL designs, configuring local interrupts, and automating coverage points generated based on registers, thereby streamlining the verification workflow. A key aspect of the project was the creation of a structured test catalog for power management tests. Tests were systematically organized into columns for Summary/Feature, Tags, Test Names, Paths, Descriptions, Parameters, Dependencies, and Targeted Features, improving traceability and test organization. Additionally, extensive learning and application of power management architecture were achieved, including components such as the System Management Complex (SMC), Cluster

Management Complex (CMC), and Tile Management Complex (TMC). Tools like Verdi were utilized for debugging, waveform analysis, and functional coverage verification, ensuring robust validation of the design. The project also emphasized collaboration, effective documentation, and the application of Chisel and Scala for high-level demanding ware abstractions. Overall, the internship provided hands-on experience in low-power design principles, automation, and verification methodologies, contributing to a deeper understanding of power-efficient system design and validation.

**Tool used (Development tools - H/w, S/w) :** Software Tools: Verdi: For debugging, waveform analysis, and functional coverage verification. Git: For version control and collaboration. GCC: For compiling software components. Chisel and Scala: For generating high-level demanding ware abstraction of Verilog

**Objectives of the project :** To verify the functionality of the Design from the Power Management perspective

**Major Learning Outcomes :** Understanding Power Management Systems

Gained insights into low-power design principles, power states, and the architecture of power management systems.

UPF (Unified Power Format) Integration

Learned how to bring up and verify UPF configurations to ensure

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at SiFive was collaborative, fast-paced, and highly technical, emphasizing innovation

and teamwork. The organization provided exposure to cutting-edge technologies in semiconductor design and verification, focusing on RISC-V-based solutions. The team was approachable and supportive, fostering a culture of knowledge sharing and continuous learning. Regular reviews and discussions ensured clarity in objectives and alignment with project goals. The work revolved around power management systems and design verification, requiring attention to detail, analytical thinking, and a proactive approach to opportunity-solving. Tools like

Verdi, Git, and simulation platforms were integral to daily tasks, providing hands-on experience in industry-standard workflows. Expectations from the company included contributing effectively to ongoing projects, demonstrating ownership of tasks, and delivering results within timelines while maintaining quality.

The opportunity to work on Unified Power Format (UPF) integration and the development of a test catalog for power management offered a deep dive into system-level design and its practical challenges. This experience, combined with structured guidance and regular feedback, helped in

honing technical skills, gaining industry insights, and understanding the complexities of semiconductor design. The supportive environment and access to advanced tools ensured a valuable and enriching learning experience, meeting and exceeding expectations from the internship.

**Academic courses relevant to the project :** Digital Design  
Computer Architecture

**PS-II STATION :** SIFIVE INDIA PVT LTD ,BENGALURU

**FACULTY NAME:** A REKHA .

**STUDENT NAME:** ANANT JAIN (2020B5AA1569G)

Student Write-up

**PS-II Project Title:** Design Verification for In-Order Cores

**Short Summary of work done during PS-II :** My work involved making a test environment around a tile mainly. Tile is basically a core in a processor with maybe some caches. I had to build a test environment along the same. With this i also made test cases for new features in the in order cores. Also I triaged failures in the regression found a lot of bugs and reported them

**Tool used (Development tools - H/w, S/w) :** VScode, Synopsys Verdi , No Machine , Jira , Workday

**Objectives of the project :** Create a test environment for a tile in the in-order cores. Also triaging failures and making tests

**Major Learning Outcomes :** Scala ,Chisel, Computer Architecture , Caches , Random Test Generators

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** Working environment was really great. Even though there were not so many outings or anything but the people here are really helpful. They taught everything from scratch mostly (of course you need basic digital design and computer architecture knowledge). I learnt a lot met and interacted with senior officials in the company. I think the company did fulfil my expectations.

**Academic courses relevant to the project :** Digital Design, Computer Architecture

PS-II STATION : SILICON LABS ,HYDERABAD

FACULTY NAME: SUPARNA CHAKRABORTY .

STUDENT NAME: MAMIDANNAKRISHNATEJA (2023H1240050H)

Student Write-up

**PS-II Project Title:** Testing and Validation of MCU Peripherals and Communication Protocols in SiWx917M SoC

**Short Summary of work done during PS-II :** Validated and Tested the peripherals manually and automated them to reduce time spent and written scripts and code in order to test them

**Tool used (Development tools - H/w, S/w) :** Python, Simplicity studio(Embedded C studio), Docklight, Teraterm, Logic, Jenkins.

**Objectives of the project :** To test the MCU peripherals manually and automatically using automation.

**Major Learning Outcomes :** The major learning outcome is how MCU peripherals work independently and also coordinate with other peripherals, how to test and validate them for an efficient working of MCU and how automation helps to reduce the time spent on testing and validating.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Silabs is a great place to work in as it offers wide range of operations to work for. Silabs not only expects its employees to produce results in time but also expects the employees to learn and develop new ideas, produce papers/articles which further helps to increase the efficiency of the operations and products which will be released in the future. Silabs is a great place for Embedded/VLSI/Communication enthusiasts to start their career or build their career further.

**Academic courses relevant to the project :** Embedded studies, Digital Electronics, Pulse and Digital Circuits, Digital Communication, Microcontrollers and Microprocessors.

PS-II STATION : SILICON LABS ,HYDERABAD

FACULTY NAME: SUPARNA CHAKRABORTY .

STUDENT NAME: V SOWBARANIC RAJ (2023H1240051H)

Student Write-up



**PS-II Project Title:** Integration of Peripheral Sleep – Wake up with WIFI BLE Provisioning with AWS

**Short Summary of work done during PS-II :** In IoT applications, individual testing of peripherals is commonly carried out through manual and automated methods. However, for real-time applications, it's crucial that these peripherals work seamlessly within a power system, necessitating system integration testing. This ensures that various components interact correctly under real-world conditions. The main objective is to create combination test applications that evaluate the functionality of multiple integrated peripherals. Additionally, a power manager will be included to monitor and optimize power consumption during testing. This approach enhances reliability, efficiency, and performance, ensuring that IoT systems operate smoothly in practical, power-sensitive environments.

**Tool used (Development tools - H/w, S/w) :** 1) Radio Boards in Silicon Labs 2) Base Boards in Silicon Labs 3) Silicon Labs Studio 4) Logic Analyser

**Objectives of the project :** 1) Integration of Peripheral Sleep – Wake up with WIFI BLE Provisioning with AWS and test apps are developed to ease out the testing of various peripherals in the presence of one another.

**Major Learning Outcomes :** Embedded communication protocols, WiFi, BLE, MQTT, Multithreading

**Details of Papers/patents : Nil**

**Brief Description of working environment, expectations from the company :** Environment was really friendly. Teammates were really helpful. My manager was not just focused on me finishing the tasks, he was also ensuring my learning process is going on smoothly.

**Academic courses relevant to the project :** Advanced Wireless Communication.  
Advanced DSP

**PS-II STATION : SINGLESTORE INDIA PVT LTD, HYDERABAD**

**FACULTY NAME: SAI KISHOR JANGITI .**

**STUDENT NAME: ANKITH PRAVEEN (2020B4A70625G)**

Student Write-up

**PS-II Project Title:** Enhancing Engine Security in SingleStore Database

**Short Summary of work done during PS-II :** During my internship, I worked on enhancing the security and reliability of the MemSQL (SingleStore) database engine through several key features

additions and bug fixes. I resolved a parsing bug in the CREATE PIPELINE statement where column names with trailing spaces caused syntax errors, improving input handling. I also implemented a password expiry warning system that alerts users 14 days before expiration, triggered on every query execution. To give administrators more control, I introduced a configurable password\_expiration\_mode, allowing either full denial of access or limited access for users with expired passwords. Additionally, I added SQL commands to manually expire or reactivate user passwords, updating the information schema. users accordingly. For secure client-server communication, I implemented support for mutual TLS (mTLS) using the REQUIRE X509 clause in user-related SQL statements. This ensures certificate-based mutual authentication during connection setup. Lastly, I debugged and fixed mTLS-related edge cases, including trust validation failures when using custom certificate authorities and incorrect privilege downgrades in SSL configuration mismatches. These tasks helped me gain hands-on experience with SQL parsing, database authentication protocols, and real-world debugging in a large-scale distributed system.

**Tool used (Development tools - H/w, S/w) :** C++, Python, Yacc, Golang, SingleStore, OpenSSL

**Objectives of the project :** Improved the security of the MemSQL engine by implementing mutual TLS (mTLS) for encrypted client-server communication and enhancing password policy enforcement.

**Major Learning Outcomes :** Gained a solid understanding of TLS/mTLS protocols and how secure communication is established in distributed systems. Learned how to enforce strong password policies and the importance of secure authentication mechanisms.

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** This is my second semester at SingleStore and I was allowed to work-from-home this semester. The working environment at SingleStore during my internship was supportive, flexible, and professional. Although I worked remotely, I felt well-connected to my team through regular communication via Slack, video calls, and code reviews. The company fosters a collaborative culture where engineers are encouraged to ask questions, share ideas, and contribute actively to real projects. Team members were approachable and always willing to help, which made the learning process smooth despite the remote setup. The expectations from the company were clear and reasonable. I was expected to take ownership of my tasks, write clean and well-documented code, and proactively communicate progress or blockers. There was a strong emphasis on quality, security, and performance. I was also encouraged to participate in code reviews and technical discussions, which helped me improve my understanding of the system and sharpen my opportunity-solving skills.

**Academic courses relevant to the project :** DBMS, OS, Computer Networks, Compiler Construction

**PS-II STATION : SINGLESTORE INDIA PVT LTD, HYDERABAD**

**FACULTY NAME: SAI KISHOR JANGITI .**

**STUDENT NAME: DEV GALA (2021A7PS0182H)**

Student Write-up

**PS-II Project Title:** Live customer monitoring service for serverless applications

**Short Summary of work done during PS-II :** I have worked on building real-time customer monitoring services using Golang, React, GraphQL, and WebSockets. On the backend, I used Golang to develop scalable services that handle concurrent connections efficiently, leveraging its native support for goroutines and channels. I designed GraphQL APIs to enable flexible data querying, allowing clients to fetch exactly what they need. For real-time communication, I integrated WebSockets to push live updates about customer activity and system events directly to the frontend. On the client side, I used React to create dynamic and responsive UIs that visualize these real-time events and provide users with actionable insights. This combination of technologies enabled the development of a fast, efficient, and interactive monitoring dashboard tailored to customer needs.

**Tool used (Development tools - H/w, S/w) :** Golang, k8s, websockets, react

**Objectives of the project :** Learn how to provide customers with live data from serverless apps for enhanced developer experience.

**Major Learning Outcomes :** Websocket architecture

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Most of the teams are online. The people are really helpful but work can become hectic sometimes, since teams are spread around the world and matching timings can be a little bit tough. Overall everyone is very helpful and friendly.

**Academic courses relevant to the project :** OS, Networks, DSA

**PS-II STATION : SINGLESTORE INDIA PVT LTD, HYDERABAD**

**FACULTY NAME: SAI KISHOR JANGITI .**

**STUDENT NAME: NALLA REVANTH (2021A7PS0236H)**

Student Write-up

## **PS-II Project Title: Improving Notebook Apps: Performance, UX**

**Short Summary of work done during PS-II :** During my PS-II at SingleStore, I worked on improving the usability and performance of Notebook Apps. I enhanced the loading bar with real-time progress, added an “Idle” state to reflect server status correctly, and replaced blocking calls with non-blocking ones for faster app startup. I refactored the frontend to make it more reusable across different apps and added one-click snapshot updates to simplify user workflows. I also implemented session and usage limits based on customer tiers to manage resources better. Visual improvements like showing the last 10 scheduled executions and adding pagination helped improve the user experience. Overall, the work focused on making the platform faster, more user-friendly, and easier to maintain.

**Tool used (Development tools - H/w, S/w) :** React.js, TypeScript, Go, SQL, GraphQL, Git, Docker, VS Code

**Objectives of the project :** The main goal of the project was to make Notebook Apps easier to use, faster, and more reliable. This included showing clearer messages and progress when apps are loading or running, limiting how long apps can run based on the type of customer, and making sure the system doesn't slow down when there are many apps. I also worked on making the code simpler and more reusable, added features to help users do tasks with fewer steps, and improved the setup for developers working on their own computers. Overall, the focus was on giving a smoother experience for both users and developers.

**Major Learning Outcomes :** During the internship, I gained hands-on experience working across both backend and frontend, which improved my opportunity-solving and full-stack development skills. I learned the importance of writing clean, reusable code and understood how different parts

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The team works fully remotely, so there wasn't much direct support available, overall it was good experience.

**Academic courses relevant to the project :** Software engineering, Database systems

**PS-II STATION : SINGLESTORE INDIA PVT LTD, HYDERABAD**

**FACULTY NAME: SAI KISHOR JANGITI .**

**STUDENT NAME: MANAN GUPTA (2021A7PS2091H)**

Student Write-up

**PS-II Project Title:** Distributed Database Engine Developement

**Short Summary of work done during PS-II :** This project focuses on the development of an efficient engine using C++ programming. It involves designing key components such as the core engine architecture, performance optimization, and resource management. The project aims to enhance real-time processing capabilities, ensuring high performance and scalability for complex applications.

**Tool used (Development tools - H/w, S/w) :** Linux, Company Internal Tools

**Objectives of the project :** Implement new features in MemSQL Engine

**Major Learning Outcomes :** Clustering techniques, distributed computing, parallel systems, database internals

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Folks in the Engineering department are one of the brightest in the industry, hailing from Top Universities like MIT, Stanford, CMU. Working alongside them and a daily interaction gives an immense value and a great learning curve. The basic expectation is to work demanding and ask as many question as possible - no question is dumb. Overall, its a very relaxed and balanced environment with a great focus on employee well being.

**Academic courses relevant to the project :** Operating Systems, Database Systems, Compiler Construction

**PS-II STATION : SKYDO ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: PRASHANT UPRETI (2023H1540814P)**

Student Write-up

**PS-II Project Title:** GROWTH INITIATIVES & AMAZON PERFORMANCE ANALYSIS AT SKYDO

**Short Summary of work done during PS-II :** During my internship at Skydo, I worked closely with the Growth team to help scale the platform among Indian exporters, especially Amazon Global Sellers. My projects focused on improving lead generation, content outreach, funnel analysis, and user activation. I helped organize webinars with partners like ShipGlobal and DHL to attract high-intent exporters. These webinars generated leads, which were then qualified and tracked

using custom CRM workflows and WhatsApp drip campaigns. A key part of my work involved in- depth TPV (Total Payment Volume) analysis, identifying active, dormant, and declining users. I created custom dashboards using SQL and Metabase to track the performance of SDRs (Sales Development Representatives) and AEs (Account Executives) — analyzing follow-ups, lead progression, and deal conversions. This helped identify gaps in productivity and areas to improve team efficiency, which in turn could lead to better activation and onboarding rates. I also explored how to enrich lead data using tools and manual inputs — such as geography, business type, or past transaction behavior — to get a sharper understanding of top-of-the-funnel quality. These insights were used to improve nurturing campaigns by segmenting leads better and tailoring WhatsApp and email flows based on user intent and readiness. As a result, the team was able to run more effective campaigns and convert high-quality leads faster.

**Tool used (Development tools - H/w, S/w) :** Zoho Analytics, Metabase, SQL, Python

**Objectives of the project :** Strengthen Community-Led Organic Growth, Improve Funnel Conversion Efficiency Across Stages, Enhance Paid Ad Lead Quality Through Funnel Optimization, Build Scalable Dashboards for Sales & Marketing Teams, Automate Onboarding and Account Linking Workflows, Analyze TPV De-growth and Nurture Cold Leads

**Major Learning Outcomes :** 1. Saw a 15–20% improvement in engagement among cold leads who received the nurturing content.

2. Identified that many drop-offs were due to users shifting to banks or facing document aspects.

3. Restarted conversations with 40+ previously inactive customer

**Details of Papers/patents :** No Patents/Papers

**Brief Description of working environment, expectations from the company :** The work environment at Skydo was fast, friendly, and focused on getting things done. Even as an intern, I was trusted with important projects and treated like a full-time team member. Everyone worked together — whether it was the growth team, tech, design, or product. People were open to sharing ideas and always ready to help. There were regular check-ins to stay on track, but also the freedom to work independently. I was encouraged to take ownership — if I started a project, I was expected to see it through. The best part was how everyone valued feedback. My mentors gave clear and honest suggestions that helped me improve my work every week.

Skydo expected us to be responsible, move quickly, and back our work with data. It wasn't just about coming up with ideas — it was about testing them, seeing what worked, and learning from the results. Whether I was creating dashboards, helping with webinars, or running campaigns, the goal was always to support growth and make the platform better for users.

Overall, the experience taught me how startups work, how teams stay productive, and how data can guide every decision. It was a hands-on, high-learning environment that helped me grow.

**Academic courses relevant to the project :** Data Analysis, SQL Queries, Growth Initiatives, Marketing Analytics, Python

**PS-II STATION : SKYDO ,BENGALURU**

**FACULTY NAME: SANDEEP KAYASTHA .**

**STUDENT NAME: ELDHO JOHN MENACHERY (2023H1540837P)**

Student Write-up

**PS-II Project Title: Growth Intern**

**Short Summary of work done during PS-II :** During my internship, I led three major initiatives: optimizing performance marketing campaigns, enhancing creative strategies, and improving MQL recovery and lead funnel data. In the first project, I addressed inefficiencies in digital advertising by building a keyword optimization dashboard and automating reports using spreadsheet macros. This significantly improved data visibility and sped up decision-making. The second project focused on evaluating creative performance, identifying fatigue, and analyzing competitor benchmarks. Working with external freelancers, I helped produce impactful video creatives that drove better campaign performance. The third project aimed to reverse a drop in Marketing Qualified Leads (MQLs). I introduced new lead generation approaches and revamped SQL queries for more accurate funnel tracking. This improved data reliability, lead segmentation, and conversion analysis. Together, these efforts led to a 64% rise in paid onboardings from Ideal Customer Profiles (ICPs), including a 38% and 16% increase in Google and Meta ICPs, respectively. This experience sharpened my skills in performance marketing, analytics, creative development, and cross-functional collaboration, deepening both my technical expertise and strategic thinking in a high-growth environment.

**Tool used (Development tools - H/w, S/w) :** Zoho Analytics, MS Excel

**Objectives of the project :** Identify and reduce spend on underperforming keywords and audiences. Streamline performance tracking and reporting to enable faster decision-making. Improve overall ROI by aligning creatives, targeting, and bidding strategies with performance data.

**Major Learning Outcomes :**

Digital Marketing & Advertising

Business Analytics

Data-Driven Decision Making

CRM and Funnel Management

Creative Content Strategy

Performance Reporting Automation

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The company culture is very good, everyone here is very smart so we get to learn a lot of things.

**Academic courses relevant to the project :** mpba g514 - deep learning for business, mpba g525 digital analytics, mpba g511 data visualisation, mpba g516 adv spreadsheets & macros for business

**PS-II STATION : SNIVAA CONSULTING ENGINEERS ,PUNE**

**FACULTY NAME: MUTHUKUMAR G .**

**STUDENT NAME: KURAKULA UDAYA MADHU (2023H1430047P)**

Student Write-up

**PS-II Project Title:** Structure Design experience at Snivaa Consulting Engineers

**Short Summary of work done during PS-II :** In my internship at Snivaa Consulting Engineers, I have been involved in analysis and design of multiple steel structures, design of residential bungalows and farm houses. Along with above mentioned I have also been involved in design of special structures like barricade wall.

**Tool used (Development tools - H/w, S/w) :** S/w : ETABS, STAAD Pro, RCDC, SAFE, AutoCAD, MS Excel, MS Word

**Objectives of the project :** Analysis and Design of various structures

**Major Learning Outcomes :** Professional understanding of concepts, learning of various analysis and design software.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Working environment is good. It is a small office which is good enough for 5 to 6 people.

**Academic courses relevant to the project :** Earthquake Engineering, Advanced Concrete Structures, Design of multi storey structures, Advanced Computational Modelling.



**PS-II STATION : SNOWBALL CAPITAL INVESTMENT ADVISORS LLP ,HYDERABAD**

**FACULTY NAME: ANJANI SRIKANTH KOKA .**

**STUDENT NAME: YASH AGRAWAL . (2021A1PS2119P)**

Student Write-up

**PS-II Project Title: Equity Research and Financial Modelling**

**Short Summary of work done during PS-II :** During my final semester, I worked as an Investment Intern at Bandhan Life Insurance (formerly Aegon Life) in Mumbai, where I gained hands-on exposure to equity research, financial analysis, and corporate governance evaluation. One of my key responsibilities involved compiling governance and board composition data for over 40 Asset Management Companies (AMCs). I conducted a comparative analysis to study the correlation between board-related variables—such as independence, tenure, and diversity—and fund performance and operational metrics. This helped me understand the practical implications of corporate governance on financial outcomes. I also developed sector expertise by performing in-depth equity research on the Indian chemical and FMCG sectors, evaluating business models, competitive positioning, key growth drivers, and valuation metrics like P/E and EV/EBITDA multiples. My role required extensive use of the Bloomberg Terminal for financial data extraction, peer benchmarking, and company screening, which strengthened my technical proficiency and market research skills. Additionally, I contributed to the creation of investment summary reports and sector overviews that supported decision-making processes and strategy discussions with senior analysts. Through this internship, I not only improved my financial modeling and valuation capabilities but also enhanced my ability to synthesize complex data into actionable insights. It gave me a holistic view of the investment research process and helped me develop a more analytical and structured approach to evaluating companies and markets.

**Tool used (Development tools - H/w, S/w) :** Bloomberg Terminal – For financial data extraction, company screening, and peer benchmarking, Microsoft Excel – For financial modeling, data analysis, and valuation calculations, Microsoft PowerPoint – For preparing investment decks, sector snapshots.

**Objectives of the project :** To assess the financial health of the companies and identify target companies for investment

**Major Learning Outcomes :** 1) Developed strong skills in analyzing financial statements, understanding business models, and assessing company fundamentals.  
2) Gained hands-on experience with valuation methodologies like DCF, comparable company analysis (Comps), and precedent transaction

**Details of Papers/patents :** There was no involvement of writing a research paper or filing a patent.

**Brief Description of working environment, expectations from the company :** Interns were expected to be self-driven, proactive, and well-prepared. Deliverables such as financial models, sector reports, and investment memos had to be accurate, concise, and backed by thorough research. Emphasis was placed on using data effectively to support investment theses and on staying updated with market developments. Regular feedback sessions helped in sharpening analytical skills and refining output quality.

The use of tools like Bloomberg, Excel, and industry databases was integrated into daily responsibilities, and interns were expected to demonstrate technical proficiency and a willingness to learn. Snowball Capital maintained high standards of professionalism and confidentiality, reflecting its boutique but high-impact presence in the investment space.

Overall, the environment was well-suited for someone seeking to build a strong foundation in equity research and investment analysis, with a focus on real-world applicability, strong mentorship, and continuous learning. Since, it's a small organization, there was an added ownership/feeling of responsibility.

**Academic courses relevant to the project :** DRM, Fin man, Funda Fin

**PS-II STATION : SONA COMSTAR,GURUGRAM**

**FACULTY NAME: SAMEER GUPTA .**

**STUDENT NAME: BELSARE PRATIK PRASHANT (2023H1060157H)**

Student Write-up

**PS-II Project Title:** Forging Design and simulation

**Short Summary of work done during PS-II :** During this internship I have learnt the overall forging process right from the billet cutting process to the final inspection of forged parts. This included the design of different parts and then simulation to improve metal flow inside the forging dies. Along with that I worked on some process and inspection documentation.

**Tool used (Development tools - H/w, S/w) :** Siemens Solid edge, PLM, DEFORM 3D(Simulation software)

**Objectives of the project :** Improvement in Die Design and simulation the forging process

**Major Learning Outcomes :** FEA simulations, design, process optimization

**Details of Papers/patents :** Used to study the published papers related to the forging load calculation and design parameters improvements.

**Brief Description of working environment, expectations from the company :** Work culture is good. People are ready to teach various processes. Mentors and reporting managers are understanding and overall environment is healthy.

**Academic courses relevant to the project :** FEA, Metallurgy, Heat transfer, GD&T, Metrology

**PS-II STATION : SRI VENKATACHALAPATHY CONSTRUCTIONS PVT.LTD., CHENNAI**

**FACULTY NAME:** MUTHUKUMAR G .

**STUDENT NAME:** NARKULA SRIKAR REDDY . (2021A2PS2624P)

Student Write-up

**PS-II Project Title:** Urban Drainage Infrastructure Planning and Execution for Madhavaram Region, Chennai

**Short Summary of work done during PS-II :** During our PS-II at Sri Venkatachalapathy Construction Pvt. Ltd., we worked on developing a robust underground drainage network in the Madhavaram area of Chennai. The project included surveying over 22 km of terrain, mapping existing utilities, and implementing RCC and brick manholes based on traffic load and depth. We constructed screening wells at sub-pumping stations to enhance pump safety and efficiency. Key responsibilities included ground level surveying using DGPS and Roadometer, alignment design in AutoCAD Civil 3D, excavation with trial pits, and overseeing the laying of CI and DWC pipelines per IS 1239:2004 standards. We navigated complex challenges such as old utility lines, weak soil requiring dewatering, and coordination with civic bodies for excavation permissions. Through real-time decision-making and collaboration with stakeholders, we ensured seamless project execution and learned hands-on about hydraulic slope maintenance, construction safety, and quality checks. The exposure enriched our understanding of civil infrastructure projects beyond the classroom.

**Tool used (Development tools - H/w, S/w) :** Demanding ware/Field Tools: DGPS, Total Station, Roadometer Ground Penetrating Radar (GPR) Excavators, dewatering pumps, shoring systems Software: AutoCAD Civil 3D QGIS / ArcGIS EPANET / Sewer CAD for hydraulic modeling

**Objectives of the project :** To design and implement an efficient underground drainage system in Madhavaram. To minimize urban flooding, waterlogging, and sanitation aspects. To construct manholes, screening wells, and a 22 km pipeline network for optimized wastewater flow to the STP (Sewage Treatment Plant). To ensure long-term infrastructure resilience with gravity-based flow and low operational overhead.

**Major Learning Outcomes :** Practical knowledge of manhole and pipeline design following IS standards

Surveying techniques using DGPS, Roadometer, and trial pits

Experience in project execution phases: surveying, excavation, construction, and pipeline laying Conflict resolution w

**Details of Papers/patents :** No published papers or patents during the PS-II tenure.

**Brief Description of working environment, expectations from the company :** We worked under a structured yet dynamic construction environment where real-time decision-making was essential. The company maintained high standards of site safety, encouraged active participation, and gave us firsthand exposure to surveying, utility mapping, and pipeline construction.

We were expected to be proactive, adaptable to field challenges, and diligent in documentation and reporting. Our mentors supported learning by involving us in actual project coordination meetings, troubleshooting design changes, and managing stakeholder communications, including Metro Water and Corporation officers.

The environment was hands-on, with daily engagement in on-ground operations and discussions with engineers and contractors. The learning curve was steep but rewarding, as we could directly apply academic concepts to real infrastructure execution. The company's openness to involving interns in decision-making, safety audits, and design revisions was instrumental in enhancing our technical and professional growth.

**Academic courses relevant to the project :**

Water and Wastewater Engineering Surveying  
Techniques

Hydraulics and Fluid Mechanics

Construction Project Management

Environmental Engineering Structural

Analysis and Design Geotechnical

Engineering

**PS-II STATION : ST MICRO - DEMANDINGWARE ,GREATER NOIDA**

**FACULTY NAME: RAJESH KUMAR TIWARY .**

**STUDENT NAME: NIMIT JAIN . (2020B4A31995P)**

Student Write-up

**PS-II Project Title:** Firmware development for Mini PLC board

**Short Summary of work done during PS-II :** Developed a firmware for a mini PLC board. Completed end to end project including the documentation and publication process. The firmware uses GPIO and UART for communication. Implemented ISRs, advanced timers, application functions and other features.

**Tool used (Development tools - H/w, S/w) :** STM32 CubeIDE, IAR, Keil, STM32 CubeMX, Oscilloscope, power supply

**Objectives of the project :** To develop a firmware for Mini PLC board

**Major Learning Outcomes :** Software development, Microcontrollers, UART, I2C, C programming

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Great working environment with helpful people and no work pressure.

**Academic courses relevant to the project :** C programming, electronic devices

**PS-II STATION : STAMPMYVISA- NON IT ,BENGALURU**

**FACULTY NAME:** RAMESH VENKATRAMAN .

**STUDENT NAME:** M VARUN SRINIVAS (2020B3AA0497H)

Student Write-up

**PS-II Project Title:** Product Management – B2B Operations and New Initiatives

**Short Summary of work done during PS-II :** Created and maintained B2B sales flow on Lead Squared CRM, created and maintained features for the internal platform "Nucleus", which catered to the Visa Operations executives.

**Tool used (Development tools - H/w, S/w) :** Lead Squared CRM, Figma, Google Docs, Metabase

**Objectives of the project :** To create and improve on the B2B sales flow via the CRM platform Lead Squared. Helping the team with data related work(extraction and addition).

**Major Learning Outcomes :** Learnt about stakeholder management, maintaining customer relationships, understanding user pain points, prioritizing opportunities and solutions, CRM and Data Extraction & Analysis tools

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** I enhanced my ability to communicate ideas clearly and professionally. The exposure to practical scenarios helped me become more confident and solution-oriented.

**Academic courses relevant to the project :** Principles of Management

**PS-II STATION :** SYNEOS HEALTH, GURUGRAM

**FACULTY NAME:** BHARATHI R .

**STUDENT NAME:** KASHISH GARG (2023H1530211P)

Student Write-up

**PS-II Project Title:** A Strategic Proposal for a Unified, Data-Driven Immunology Franchise Plan: High-Level Tactical Plan for Market Success

**Short Summary of work done during PS-II :** Along with preparing a strategic proposal, I was involved in working with different consulting teams around analogue analysis, dossier preparation, competitive analysis, KOLs identification, Knowledge Management, Disease Landscape Assessment, Company Profiling. I assisted different team members from consultants to managers in preparing proposal decks, business development decks, product profiling, data mining and analysis, drawing insights and forecasting. Everything I did and was involved in has equipped me with ample knowledge and understanding of healthcare consultancy and apply my basic skills into deliverables.

**Tool used (Development tools - H/w, S/w) :** MS Office, Syneos Internal Tools, Data Monitor

**Objectives of the project :** The objective of the project was to create a strategic proposal for a client that is looking to increase its drug portfolio's market adoption. It wanted Syneos Health to recognize their drug portfolio and how can it help them and our focus was to identify the challenges, perform SWOT analysis, and list our approach to develop an effective and strong high level roadmap backed by the organization's experience and expertise that can cater effectively to client's need.

**Major Learning Outcomes :** Through the PS journey, I gained hands-on experience on how to perform good secondary research, data mining, think like a consultant, and perform analysis. Additionally, I gained various skill sets pertaining to preparing proposals, using MS Excel, prepare

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Syneos Health stands out as a global biopharma consulting organization with a vibrant, inclusive culture and a highly supportive work environment. What truly sets it apart is the approachability of its leaders and seniors—always ready to guide, mentor, and empower new joiners. Rather than enforcing rigid systems, the company believes in leveraging individual strengths through flexibility and trust, ultimately fostering both high productivity and low stress.

From the moment I joined, the experience has been nothing short of enriching. We were welcomed with warmth and given ample time to settle in. The initial phase was thoughtfully designed around training and orientation, with no undue pressure—just genuine efforts to help us understand the work, culture, and expectations. This patient and people-first approach allowed us to adapt smoothly and start contributing meaningfully to projects.

What I found most remarkable was how our efforts, once we started engaging in tasks, were met with appreciation from seniors and managers alike. This constant encouragement created a motivating environment that helped bring out the best in us.

Personally, the company's culture made a lasting impact on me. It is not only welcoming and nurturing but also naturally inclusive—one you blend into effortlessly, not out of obligation, but out of alignment with shared values and purpose. For that, I'm truly grateful.

**Academic courses relevant to the project :** Clinical Research, Intellectual Property Rights & Pharmaceuticals

**PS-II STATION : SYNERGIZ GLOBAL SERVICES PVT LTD ,HYDERABAD**

**FACULTY NAME: K VENKATASUBRAMANIAN .**

**STUDENT NAME: CHINMAY ADITYA PATNAIK (2020B2A22600H)**

Student Write-up

**PS-II Project Title: INTERNSHIP UNDERTAKEN AT SYNERGIZ GLOBAL**

**Short Summary of work done during PS-II :** During my Practice School-II at Synergiz Global, I was involved in civil engineering and project coordination tasks across multiple domains. My primary assignment was the development of a digital repository of engineering drawings for Western Railways, I worked extensively with MS Excel to create a searchable log of all files with metadata, drawing codes, and remarks. Alongside this, I contributed to an international tender proposal for a Nepal-based infrastructure project by reviewing bid documents and formatting technical sections. I also supported internal HR tasks by formatting resumes as per client templates and worked on e-MB (Electronic Measurement Book) data entry for billing and construction progress. The internship enhanced my attention to detail, documentation skills, and time management. It also exposed me to the workflow of client-facing deliverables and real-world civil documentation systems.

**Tool used (Development tools - H/w, S/w) :** MICRISOFT EXCEL

**Objectives of the project :** CONTRIBUTE TO MAKING A CONSTRUCTION DRAWINGS REPOSITORY FOR WESTERN RAILWAYS

**Major Learning Outcomes :** HOW TO READ CONSTRUCTION DRAWINGS

## **Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The working environment at Synergiz Global was structured yet flexible, with a strong emphasis on ownership and independent responsibility. As an intern, I was treated as a contributing team member, and expectations were aligned with real-world deliverables rather than purely academic tasks. The culture was supportive — seniors were approachable and open to questions, and guidance was provided when needed, especially during the initial phases of large-scale assignments like the Western Railways Drawings Repository. Communication primarily occurred through Skype and Microsoft Teams, with regular check-ins to track progress. I was expected to manage time efficiently, maintain accuracy in documentation, and deliver work that could directly be submitted to clients — especially in high-volume, detail-sensitive projects. Beyond technical skills, the company expected interns to be proactive, organized, and solution-oriented. There was a clear focus on quality, consistency, and clarity of output. The experience closely mirrored the demands of a full-time professional setting, offering insight into how civil engineering work is coordinated across teams, clients, and documentation systems. The opportunity to work across multiple domains — technical, administrative, and HR support — made the environment dynamic and multi-disciplinary.

**Academic courses relevant to the project :** CONSTRUCTION, PLANNING AND TECHNOLOGY

**PS-II STATION : TATA INSTITUTE OF FUNDAMENTAL RESEARCH ,HYDERABAD**

**FACULTY NAME: RAKESHA CHANDRA DASH .**

**STUDENT NAME: MEHEK GARG (2023H1290006P)**

Student Write-up

**PS-II Project Title:** Investigating In Vitro Aggregation of Wild Type p53 DNA-Binding Domain

**Short Summary of work done during PS-II :** We investigated the expression, purification, and fibrillization behavior of wild-type p53 DBD using two constructs: pSRK23 and an MBP-fusion construct pSRK148 designed to enhance solubility of the protein. Fibrillization kinetics was monitored through SEM and TEM imaging, thioflavin T assay, and turbidity assay. Overall, the project highlights the fibrillization kinetics of p53 DBD and lays the foundation for the future studies aimed at investigating its aggregation mechanism and identifying stabilization strategies for therapeutic applications.



**Tool used (Development tools - H/w, S/w) :** SEM, TEM, SDS Page, plate reader, AFM, affinity chromatography, size exclusion chromatography, CD, LC-MS, Pymol, thermocycler, gel electrophoresis, nano drop

**Objectives of the project :** To understand the fibrillization kinetics of p53 DBD under varying conditions

**Major Learning Outcomes :** I learned the fibrillization kinetics of p53, which is a highly mutated transcription factor in many types of cancer. Particularly, the DNA-binding domain (DBD) of the TP53 is mutated the most. I learned the effects of varying physical conditions.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** This has truly been a wonderful place to work. I've learned so much during my time here. Dr. Vipin Agarwal, Principal Investigator, and Dr. Sreejith Raran-Kurussi, Scientific Officer E, have been incredible mentors, always kind, supportive, and willing to go the extra mile for their students.

**Academic courses relevant to the project :** Cancer Biology, GET, ET, ARDT

**PS-II STATION : TECHTURE STRUCTURES, INDORE**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA .**

**STUDENT NAME: DARSHAN SONI (2023H1430033H)**

Student Write-up

**PS-II Project Title:** Bim intern

**Short Summary of work done during PS-II :** Do modelling and drafting of cleanrooms and point clouds

**Tool used (Development tools - H/w, S/w) :** Revit

**Objectives of the project :** Drafting and modelling

**Major Learning Outcomes :** Collaborative workflow

**Details of Papers/patents :** N/A

**Brief Description of working environment, expectations from the company :** Good environment and good btech students

**Academic courses relevant to the project : Yes**

**PS-II STATION : TECHTURE STRUCTURES,INDORE**

**FACULTY NAME: MAHESH KUMAR HAMIRWASIA .**

**STUDENT NAME: PARTH BAGHMAR (2023H1430041P)**

**Student Write-up**

**PS-II Project Title:** 1. Training project 2. Scan-to-BIM 3. Strut and ceiling Fabrication drawings of clean rooms 4. Project scheduling

**Short Summary of work done during PS-II :** During my internship at Tecture, Indore from January 16 to June 18, 2025, I worked as a BIM Intern, focusing on Building Information Modeling and construction documentation workflows. I contributed to several live and practice projects, enhancing both my technical and practical understanding of industry-relevant tools like Revit, AutoCAD, TruView, SketchUp, and Excel. One of the key projects involved point cloud to BIM modeling for three commercial stores in Texas, where I developed structural and architectural models at LOD 300 using Revit, based on laser-scanned data. This included understanding scan- to-BIM workflows and aligning complex point cloud files accurately. In another major task, I worked on creating fabrication drawings for cleanrooms, including ceiling and strut detailing, strictly adhering to client standards for annotations and layout styles. I also participated in file format conversions, generating Revit families and models in multiple formats such as .OBJ, .DWG, .RFA, and .SKP for component-level elements like door handles and knobs. To support my learning curve, I completed a residential practice project to understand core Revit functions. Additionally, I created construction schedules in Excel for real projects, applying Work Breakdown Structures and precedence logic to simulate practical project planning. Through this internship, I developed strong foundations in BIM workflows, gained exposure to industry documentation standards, and improved my coordination, attention to detail, and time management skills.

**Tool used (Development tools - H/w, S/w) :** Revit, AutoCAD, TruView, Excel and Naviswork (very basic)

**Objectives of the project :** 1. To learn about revit software 2. To create a as built model of huge supermarket located in US for it management and maintenance purpose 3. Pre fabrication drawings of struts and ceiling with required dimensions and cutting 4. Project management to estimate time of project completion

**Major Learning Outcomes :** Learned about revit and how can it be applied in real world projects, also got to know how the BIM industry works and its advantages in Scan-to-BIM, fabrication drawings and many more.

**Details of Papers/patents :** No details

**Brief Description of working environment, expectations from the company :** The working environment at Tecture, Indore was dynamic, professional, and highly collaborative. As a BIM intern, I was given the opportunity to work alongside experienced professionals who were always ready to offer guidance and share their knowledge. The office atmosphere fostered learning, innovation, and teamwork, with open communication encouraged across all levels. Regular team meetings, project reviews, and mentoring sessions helped me stay aligned with project goals while improving my technical skills.

The company's culture emphasized continuous learning and hands-on experience, encouraging interns to take on real-world tasks and contribute meaningfully to ongoing projects. The internship program was structured to provide exposure to a variety of tasks, including architectural and structural modeling, fabrication drawings, and construction scheduling. The team was always willing to invest time in helping interns navigate new tools and software, making the learning process smoother.

Expectations from the company were clear: to develop a deep understanding of BIM tools like Revit, AutoCAD, and TruView, while contributing to live projects. The company also expected interns to display initiative, manage their time effectively, and adapt quickly to new challenges. Additionally, high standards of quality and accuracy were emphasized, particularly when creating detailed fabrication drawings and working with client-specific requirements. The internship program offered valuable exposure to the professional workflow and industry standards, preparing me for future roles in structural engineering and BIM management.

**Academic courses relevant to the project :** Yes

**PS-II STATION : TECTONIC TECHNOLOGIES INC - SOFTWARE ENGINEERING ,BENGALURU**  
**FACULTY NAME: PRADHEEP KUMAR K .**  
**STUDENT NAME: HITARTH KANKAR (2021A7PS0320H)**

Student Write-up

**PS-II Project Title:** Frontend Innovations at Tectonic Technologies

**Short Summary of work done during PS-II :** Learnt about the basics of ecommerce concepts so as to gain more insights of the flow of fragments and data on the website. I was involved in development of key features and fragments for different brands such as Frido, Vaaree, Bombae,

Bombay Shaving Company, etc. This was done on an internal framework called Juiz. Juiz is a UI interface for Web development which acts as a page builder for all the storefronts.

**Tool used (Development tools - H/w, S/w) :** Software- Juiz, VSCode

**Objectives of the project :** To make custom storefronts for various ecommerce companies

**Major Learning Outcomes :** How to build a storefront from scratch. The elements involved in consistent, reusable and efficient designing of each fragment of the website were a great learning.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** I developed a sense of discipline, responsibility, and perseverance through the assigned tasks. The experience also taught me to approach challenges with a positive mindset.

**Academic courses relevant to the project :** Data Structures and Algorithms, Design and Analysis of Algorithms

**PS-II STATION : TELUS INTERNATIONAL - SOLUTION ENGINEERING ,BENGALURU**

**FACULTY NAME:** S.P.VIMAL .

**STUDENT NAME:** NIRANJAN SAMIR CHAUDHARI . (2020B5A30929P)

Student Write-up

**PS-II Project Title:** Not specific

**Short Summary of work done during PS-II :** I worked on retool to create dashboard for the customers, clients and the senior members of the company. I worked on python scripting and refactoring. I also worked on backend and frontend where I used Golang and react respectively.

**Tool used (Development tools - H/w, S/w) :** Retool and VSCode

**Objectives of the project :** Using python, retool, Javascript, Golang and React.

**Major Learning Outcomes :** Learnt working in professional settings. Improvement in communication and presentation apart from technical skills like coding.

**Details of Papers/patents :** No papers or patents

**Brief Description of working environment, expectations from the company :** The working environment is great. The employees are very helpful. I had great experience with my team members.

**Academic courses relevant to the project :** Knowledge of using github and knowing coding practices is helpful.

**PS-II STATION : TELUS INTERNATIONAL - SOLUTION ENGINEERING ,BENGALURU**

**FACULTY NAME: S.P.VIMAL .**

**STUDENT NAME: ANUSHRI KATYAR (2021A8PS3192H)**

Student Write-up

**PS-II Project Title:** Data Analysis, Audio Processing Automation, and Backend Development

**Short Summary of work done during PS-II :** Did backend development in Java and Golang. Used retool to make dashboard for data analysis. Did python scripting for an audio transcription project. Gave chat support to operations team to solve their product related aspects.

**Tool used (Development tools - H/w, S/w) :** IntelliJ, GoLand, Datagrip, Jupyter Hub, Docker, RabbitMq, VS Code, Pycharm, SonarCloud, GitHub, grafana, circleCi

**Objectives of the project :** Using their internal tool and backend dev

**Major Learning Outcomes :** Backend dev, data analysis

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Working environment was very flexible, we had to attend daily standups apart from that we could work at our time but had calls with product manager and seniors for work. I was expected to deliver backend tasks on time for frontend integration. In my solutions engineering task I had to be available for operations team support till 8pm and solve all their aspects.

**Academic courses relevant to the project :** OOPS, DBMS, DSA

**PS-II STATION : TELUS INTERNATIONAL - MACHINE LEARNING ,BENGALURU**

**FACULTY NAME: S.P.VIMAL .**

**STUDENT NAME: VALETI KUMARAKRISHNA (2021A7PS2617G)**

Student Write-up

**PS-II Project Title:** Machine Learning Intern (NLP), multiple projects

**Short Summary of work done during PS-II :** During my PS-II, I worked on fine-tuning transformer models for domain-specific tasks, optimizing their performance through dataset curation and training loop enhancements. I also developed and evaluated math agent workflows using LLMs, focusing on step-by-step opportunity-solving accuracy. Additionally, I explored prompt tuning techniques to improve LLM-based task workflows, enhancing reliability and output quality across various use cases.

**Tool used (Development tools - H/w, S/w) :** n8n, python, langchain etc

**Objectives of the project :** Fine-tuning transformer models, developing math agent workflows, prompt tuning for llm based workflows

**Major Learning Outcomes :** transformers, fine-tuning, prompt-tuning, agentic workflows

**Details of Papers/patents : N.A.**

**Brief Description of working environment, expectations from the company :** The company offers a positive and supportive working environment with a flexible work-from-home policy. Mentors are approachable and always willing to help. The work culture is relaxed yet productive, encouraging learning and collaboration. Overall, it's a great place to grow professionally while maintaining a healthy work-life balance.

**Academic courses relevant to the project :** Machine Learning

**PS-II STATION : TELUS INTERNATIONAL - PRODUCT MANAGEMENT FOR AI, BENGALURU**

**FACULTY NAME: S.P.VIMAL .**

**STUDENT NAME: KARAN MEHTA . (2020B2A11950P)**

Student Write-up

**PS-II Project Title:** FTS Product

**Short Summary of work done during PS-II :** Maintained release notes for new features withing FTS, its core capabilities, how it works and how it can be useful. Wrote initial PRDs for feature requests made by clients which involved opportunity statement, values of solving and solutioning. Researched and explored Agentic AI use case for integration within the product.

**Tool used (Development tools - H/w, S/w) :** Notion, Linear, Figma, Google Docs

**Objectives of the project :** Product related enhancements and maintaining feature releases.

**Major Learning Outcomes :** Product Lifecycle, how feature ideation to release works. Research for developing new features.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Working environment is friendly, seniors are approachable and helpful. Ownership of the project is given.

**Academic courses relevant to the project :** Management related

**PS-II STATION : TELUS INTERNATIONAL - PRODUCT MANAGEMENT FOR AI ,BENGALURU**  
**FACULTY NAME: S.P.VIMAL .**

**STUDENT NAME: RITISH PURI . (2020B5A41664P)**

Student Write-up

**PS-II Project Title:** Product Management for AI

**Short Summary of work done during PS-II :** Worked as a Product Management Intern in the AI team at Telus Digital, supporting the development of internal AI tools by defining requirements, coordinating release cycles, and improving adoption through user-centric documentation and insight generation.

**Tool used (Development tools - H/w, S/w) :** Notion, Jarvis, GT Studio

**Objectives of the project :** To support the development of internal AI-powered tools by defining product requirements, collaborating with cross-functional teams, and improving accessibility and usability through structured documentation and data-driven insights.

**Major Learning Outcomes :** 1. Learned how to scope and write clear, user-focused Product Requirement Documents (PRDs)  
2. Gained experience collaborating with engineering, design, and business teams

3. Understood how to collect user feedback and translate it into actionable product.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** During my internship, I contributed to the AI product lifecycle—from drafting detailed PRDs and aligning with engineering teams to supporting testing and deployment. I helped identify user pain points and translated them into structured solutions. I also developed internal documentation that made complex AI tools easier to understand and use for non-technical stakeholders. This role sharpened my understanding of product development, cross-team alignment, and the importance of bridging technical capability with user needs. I joined the internship expecting to learn how real-world AI products are conceptualized and delivered. The experience exceeded my expectations—I gained practical exposure to product strategy, team dynamics, and the impact of small improvements on user experience. Going forward, I aim to build on these foundations and work on data and AI products that deliver tangible business value.

**Academic courses relevant to the project :** Image Processing, Machine Learning, Technical Report Writing. Business Communication.

**PS-II STATION : TELUS INTERNATIONAL - PROMPT ENGINEERS - LOGIC AND REASONING ,BENGALURU**

**FACULTY NAME:** S.P.VIMAL .

**STUDENT NAME:** YASH CHAUHAN (2020B4A81683G)

Student Write-up

**PS-II Project Title:** Solutions Engineer - 1

**Short Summary of work done during PS-II :** During PS2, I focused on optimizing internal data pipelines to handle large-scale datasets more efficiently. I wrote complex BigQuery SQL scripts to automate data processing tasks and improve query performance. I contributed to building end-to-end solutions for clients using Telus's internal platforms, integrating image generation and data augmentation workflows. Additionally, I developed analytics dashboards to monitor pipeline performance and provide actionable insights to stakeholders.

**Tool used (Development tools - H/w, S/w) :** Python, Git, Retool, JS, BigQuery, SQL

**Objectives of the project :** Create Client Solutions using product offerings

**Major Learning Outcomes :** Python, Git, Retool, JS, BigQuery, SQL



**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The work pace is generally moderate, with breathing room between tasks. The Solutions team can feel repetitive and saturated over time since it mainly involves Python scripting and Retool dashboards. On the other hand, the software development work is more engaging, offering real-world exposure with coding in Go and JavaScript. Database technologies vary based on projects.

**Academic courses relevant to the project :** DSA, FDSA, OOPS

**PS-II STATION : TELUS INTERNATIONAL - SOFTWARE ENGINEERING ,BENGALURU**

**FACULTY NAME: S.P.VIMAL .**

**STUDENT NAME: DARSHAN KIRANKUMAR BAGRECHA (2020A8B52153H)**

Student Write-up

**PS-II Project Title: Software Development**

**Short Summary of work done during PS-II :** My internship at Telus International commenced in January 2025 for PS- II Semester-II, coinciding with a significant internal restructuring where the TIAI Core team and TIAI-CV (Computer Vision) team merged. This period marked my foray into a professional software development environment, offering a unique opportunity to contribute to a live, complex AI platform while navigating evolving team dynamics. Building on the strong foundation established in the first half, the period from April to June 2025 marked a significant escalation in my responsibilities and contributions at Playment. This phase was defined by my role as an on-call developer during April and May, which placed me at the forefront of addressing critical production incidents and urgent user requests. Concurrently, I became deeply involved in major development initiatives centered around "Common Auth" and "Feature Flag Tech Debt," implementing core authentication features and optimizing existing codebase. This half of the internship provided invaluable experience in full-stack development, database management, and high-stakes opportunity-solving, further solidifying my practical engineering skills in a dynamic and demanding environment.

**Tool used (Development tools - H/w, S/w) :** Python Fast API, Golang, PSQL, IDE, Git, Docker

**Objectives of the project :** Help in development of Backend and Frontend Services.

**Major Learning Outcomes :** I learnt about different Programming Language and tools to build robust and reliable software.

## **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The first three months of my internship were an immersive experience, characterized by a steep learning curve and active participation in the team's daily operations. The team merger presented a dynamic backdrop, as it required both existing and new members to adapt and integrate. From my perspective, this meant quickly familiarizing myself with a broader range of projects and collaborating with a diverse group of engineers from different specialization.

I found the organization to be highly supportive, fostering an environment where asking questions was encouraged and mentorship was readily available. This was crucial for navigating the initial complexities of a large codebase and understanding the intricate interplay between various micro-services. My daily routine involved attending stand-ups, collaborating on task estimations, and engaging in code reviews, which provided valuable insights into professional development workflows.

The second half of my internship was characterized by an elevated level of engagement and responsibility. My stint as an on-call developer during April and May was particularly impactful. This role required immediate response to urgent user management requests and production aspects, often under tight deadlines. It sharpened my ability to diagnose opportunities swiftly, priorities effectively, and execute solutions with precision, directly impacting user experience and system stability. The trust placed in me for this critical role underscored my growing capabilities and understanding of the platform.

Beyond on-call duties, I immersed myself in substantial development tasks, primarily within the "Common Auth" project, which aimed at unifying authentication across various AI platform applications. This involved developing new API methods and integrating new libraries, contributing directly to a foundational change for the entire system.

**Academic courses relevant to the project :** OOPS, Software Engineering

**PS-II STATION : TELUS INTERNATIONAL - SOFTWARE ENGINEERING ,BENGALURU**

**FACULTY NAME: S.P.VIMAL .**

**STUDENT NAME: VIRAJ MATHUR (2020B4A30956H)**

Student Write-up

## **PS-II Project Title: Experts Explorer and Common Auth**

**Short Summary of work done during PS-II :** During my PS-2 internship at TELUS International, I got to understand how enterprise-grade software development works across multiple teams and projects. I started with onboarding assignments where I built a crypto tracker web application using React, Vite, and TypeScript, and developed a corresponding API in Go with Gin framework, which gave me foundational experience in both frontend and backend development. I then worked on the DC to GTS Migration project where I authored technical specifications and migrated a legacy React codebase to a new internal tool. This taught me how companies prefer tested and safe technologies over bleeding edge solutions, and how to navigate huge codebases effectively. My major contribution was to the Experts Explorer project, where I worked with a senior developer to build the entire frontend from scratch. This portal helps Sourcing Managers find experts matching job requirements from Product Managers. I contributed 50% of the frontend implementation using React, TypeScript, and Ant Design, and also did backend work with MongoDB data extraction and BigQuery. Later, I transitioned to the Platform Team for the Common Auth initiative, where I got to understand how two different teams (AI and CV) integrate their authentication systems. I migrated the authentication library to Vite, implemented Google OAuth 2.0 and Email OTP, and developed a completely new modern UI for authentication pages. This project taught me about enterprise authentication, security best practices, and cross-team collaboration. Throughout this experience, I gained expertise in programming languages like TypeScript and Go, as well as libraries like React, and learned about CI/CD pipelines, testing with Vitest and React Testing Library, and modern web development practices.

**Tool used (Development tools - H/w, S/w) :** React, Go, TypeScript, HTML/CSS, Python, GCP, Cursor, PostgreSQL, Docker, git, GitHub, AWS, Linear, Vitest, React Testing Library, Auth0, MongoDB

**Objectives of the project :** Experts Explorer: I worked in a team of two to develop the front-end of the company's new product. Common Auth: I was the only front-end developer in this project and my task was to develop a newly designed UI (and flow) for the company's authentication pages.

**Major Learning Outcomes :** I got to understand how an enterprise-grade project is developed from start to finish. In Common Auth project, I got to understand how two different teams integrate and how authentication can be unified. I also gained expertise on programming languages.

**Details of Papers/patents :** During my PS-2 internship at TELUS International, I didn't work on any research papers or patents. My internship was focused on practical software development and enterprise application building rather than research work.

**Brief Description of working environment, expectations from the company :** During my PS-2 internship at TELUS International, I got to experience a really collaborative and professional

working environment. The company had a strong focus on modern web development practices and expected high-quality code with proper testing and documentation.

The working environment was quite flexible and supportive. I worked across two different teams: first with the Experts Engine team and later transitioned to the Platform Team. Both teams were very welcoming and encouraged learning.

TELUS International expected me to quickly adapt to their tech stack and contribute meaningfully to real projects. They didn't just give me dummy assignments. I was working on actual production systems like Experts Explorer that would be used by real users. The company expected me to follow enterprise development practices including proper Git workflows, code reviews, comprehensive testing, and detailed documentation.

What I found interesting was that they preferred tested and stable technologies over bleeding edge solutions, which taught me how enterprises make technology decisions. They expected me to write technical specifications, conduct knowledge transfer sessions, and collaborate effectively across different teams.

The company also emphasized security and best practices, especially when I worked on the Common Auth project. They expected me to understand OAuth 2.0, implement proper authentication flows, and follow enterprise security standards.

Overall, TELUS International created an environment where I could learn enterprise software development while contributing to meaningful projects that had real business impact.

**Academic courses relevant to the project : Yes**

**PS-II STATION : TENSTORRENT ,BENGALURU**

**FACULTY NAME: SHREE PRASAD M**

**STUDENT NAME: YASH RAHUL CHOGLE . (2021A3PS2387P)**

Student Write-up

**PS-II Project Title:** Design Verification

**Short Summary of work done during PS-II :** Worked as a part of the DV team to monitor testbenches, work on tests and perform functional coverage at the unit level

**Tool used (Development tools - H/w, S/w) :** vcs, SystemVerilog, UVM

**Objectives of the project :** Design Verification

**Major Learning Outcomes :** UVM, SystemVerilog

**Details of Papers/patents :** n/a

**Brief Description of working environment, expectations from the company :** Great work environment. Fast-Paced

**Academic courses relevant to the project :** Computer Architecture, Digital Design

**PS-II STATION : TENSTORRENT ,BENGALURU**

**FACULTY NAME:** SHREE PRASAD M

**STUDENT NAME:** VIKAS DHANANJAY DUBEY (2021A8PS2031G)

Student Write-up

**PS-II Project Title:** Design Verification Internship

**Short Summary of work done during PS-II :** I was debugging the fails coming in the design which was due to the RTL, and filing bugs on them,

**Tool used (Development tools - H/w, S/w) :** Verdi

**Objectives of the project :** Learn basics of Verification

**Major Learning Outcomes :** Learnt to debug fails

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** Working environment was good.

**Academic courses relevant to the project :** Digital Design, Computer Architecture, Microprocessors and Interfacing

**PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K.

**STUDENT NAME:** MANJIRA ROYCHOWDHURY (2020B1A31640H)

Student Write-up

**PS-II Project Title:** Charge Pump Efficiency Improvement in Efuse

**Short Summary of work done during PS-II :** Learned about charge pump architecture, and how to operate in different modes to achieve desired Iq, boost and speed. Then tried to make designs corresponding to the proposed architectures and then implement them in cadence virtuoso software.

**Tool used (Development tools - H/w, S/w) :** Software: Cadence Virtuoso

**Objectives of the project :** Make design, simulate on software

**Major Learning Outcomes :** Analog design

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Good but strict working environment, drives you to work demanding and be motivated.

**Academic courses relevant to the project :** Analog Electronics, Electrical Sciences, Electronics Devices

**PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K .

**STUDENT NAME:** VIDHI MEHTA (2020B1A32479H)

Student Write-up

**PS-II Project Title:** Automating DPI CAN setup

**Short Summary of work done during PS-II :** Using Python to automate the entire testing setup for the DPI test on Can device with multiple test cases such that minimal human intervention is required. This also involved creating apis for individual instruments.

**Tool used (Development tools - H/w, S/w) :** Hw lab items: oscilloscope, afg, power meter, power amplifier, power supply, signal generator. Sw: Extensive python, Labview

**Objectives of the project :** Automating the test setup used for dpi testing of can device

**Major Learning Outcomes :** Python, usage of demanding ware lab instruments like oscilloscopes, afgs, etc

**Details of Papers/patents : na**

**Brief Description of working environment, expectations from the company :** Supportive, helpful team but there's a lot of work and very less ramp up/learning time.

**Academic courses relevant to the project :** OOP, EEE Lab courses, Analog Electronics, basic coding

**PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K.

**STUDENT NAME:** TAHA YUSUF RAJA . (2020B5AA0910P)

Student Write-up

**PS-II Project Title:** Latchup Testing on Space Grade Components Using Laser

**Short Summary of work done during PS-II :** Found a laser source to do our testing and then automated the use of the laser for future testing. Relayed all observations from the test to the designers for recommendations to their design.

**Tool used (Development tools - H/w, S/w) :** Laser, Python, TINA-TI

**Objectives of the project :** To observe single even latchups on electronic circuits using a laser system instead of radiation for easier debugging.

**Major Learning Outcomes :** Special design and manufacturing techniques for radiation demanding.

Debugging process for space parts. Designing a Current and Voltage Sensor.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The work culture is great and conducive for growth. The projects handed to interns are usually very interesting and basic enough for students to complete in the duration of their internship. As an intern, you are expected to show creative thinking, initiative and enthusiasm while working on these projects, not necessarily to even complete them.

**Academic courses relevant to the project :** Electronic Devices, Analog Electronics, Microelectronics

**PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K .

**STUDENT NAME:** GRANDHALA SRI SAI HARSHITH (2020B5AA2240H)

Student Write-up

**PS-II Project Title:** SEUTUP FOR FORMAL TOOLS

**Short Summary of work done during PS-II :** I setup Jasper Gold UNR ,FPV and XPROP for the team

**Tool used (Development tools - H/w, S/w) :** Unix, CSH, SVA, Jasper Gold

**Objectives of the project :** Setting up formal verification tools for the team

**Major Learning Outcomes :** FORMAL VERIFICATION

**Details of Papers/patents :** Did not publish yet. Planning to publish a few in coming months

**Brief Description of working environment, expectations from the company :** The environment was supportive. It was nice working there.

**Academic courses relevant to the project :** Yes

**PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K .

**STUDENT NAME:** ARAN SETH (2021A3PS1321G)

Student Write-up

**PS-II Project Title:** Understanding and Design of 48V to 12V DC/DC Power Converters

**Short Summary of work done during PS-II :** During my PS-II at Texas Instruments, I focused on advancing high-efficiency power converter topologies for data center power supplies. Key contributions included developing an Excel-based calculator for precise loss estimations in Resonant LLC circuits, vital for design optimization. I also worked on the design and layout of a 48V-12V Hybrid Switched Capacitor Converter, a topology aimed at reducing  $I^2 R$  losses and enhancing system compactness in Intermediate Bus Converters (IBCs). This involved understanding its operation with a DC winding current autotransformer. Furthermore, I created marketing collateral to highlight the benefits of Gallium Nitride (GaN) in various power stages like PFC and LLC converters, and its application in Battery Backup Units (BBUs) for bidirectional DC-DC conversion, emphasizing reduced energy losses and improved efficiency. Overall, the



internship aimed at developing innovative solutions to enhance power efficiency and compactness in data center power architectures.

**Tool used (Development tools - H/w, S/w) :** SIMPLIS, Altium, Microsoft Power Point & Excel

**Objectives of the project :** To design and create a highly power-efficient Hybrid Switched Capacitor DC/DC power converter PCB for 48V to 12V power conversion.

**Major Learning Outcomes :** Learnt the principles and methodology for power converter design  
Understanding various power converter topologies such as LLC and HSC Converters  
Learning PCB design and layout Software's  
such as Altium and SIMPLIS

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** My PS-II at Texas Instruments involved working within the Analog Power Products - High Voltage Power - GaN Converters and Modules (APP-HVP-GCM) division. The environment fostered innovation in power solutions for data centers, emphasizing cross-functional collaboration. The company expected tangible contributions in enhancing power efficiency and compactness, requiring strong technical analysis, practical design work, and effective communication of GaN's advantages to revolutionize power delivery.

**Academic courses relevant to the project :** Power Electronics, Electrical Sciences and Analog Electronics.

**PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU**

**FACULTY NAME: SATHISHA SHET K.**

**STUDENT NAME: RAUNAK NIGAM (2021A3PS2841H)**

Student Write-up

**PS-II Project Title:** Characterization of OVSTand Yield Improvement

**Short Summary of work done during PS-II :** As a Product Engineering Intern at Texas Instruments, I focused on improving the test efficiency and reliability of multiphase synchronous buck converters. I worked on Over Voltage Stress Test (OVST) characterization, capacitor reliability testing, and yield optimization through test program debugging. I developed modular IDD test code, reducing execution time and improving maintainability. I also performed environmental stress testing to ensure device endurance met customer requirements. This experience

strengthened my understanding of analog test systems, failure analysis, and reliability validation in high-volume semiconductor manufacturing.

**Tool used (Development tools - H/w, S/w) :** C++, ETS-364 Tester, ETS-800 Tester, Cadence.

**Objectives of the project :** Understand the functionalities and code of various Test programs. Increase the yield of devices by debugging and removing errors from test programs. Work on Characterization of Over Voltage Stress Test and Cap Leakage Test. Raise for assembly of devices as per request and submit correct test program for its Testing to ATE Sites. Wrote Modularity code for IDD test, which helped to increase code readability and reduce Test Time.

**Major Learning Outcomes :** Improved final test yield to save the manufacturing cost per unit. Understood the characteristics of a mosfet and reliability test performed on it to check and supply most suitable device. Learned to collaborate with Assembly and Test site for testing and

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Texas Instruments was highly professional, collaborative, and conducive to learning. As an intern, I was welcomed into a culture that values innovation, integrity, and continuous improvement. The company provides well-equipped labs with state-of-the-art testing infrastructure, enabling hands-on learning and practical opportunity-solving. Access to advanced tools like the ETS-364 and ETS-800 testers allowed me to gain meaningful experience in real-world semiconductor testing and characterization.

One of the most valuable aspects of the internship was the support system. My mentor was approachable, knowledgeable, and deeply invested in my learning. I was encouraged to ask questions, take ownership of my tasks, and participate in technical discussions. The broader team was equally supportive, always ready to help with debugging, tool usage, and documentation reviews. Their guidance helped me overcome challenges and grow both technically and professionally.

Texas Instruments set clear expectations in terms of project ownership, timely execution, and documentation. At the same time, the company fostered a flexible and respectful atmosphere that encouraged curiosity and exploration. Overall, the experience not only met but exceeded my expectations, providing a solid foundation in product engineering and leaving me inspired by the culture of excellence at TI

**Academic courses relevant to the project :** Microelectronic Circuit, Analog electronics, Power Electronics, Electronic Design, Data Structure and algorithm.

**PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU**

**FACULTY NAME: SATHISHA SHET K .**

**STUDENT NAME: RR ROSHAN KRISHNA (2021AAPS2656H)**

Student Write-up

**PS-II Project Title:** Integrating RiscV core into a High Precision Analog to Digital Converter

**Short Summary of work done during PS-II :** Integrated a Processing Core (RiscV) to perform computationally intense tasks like Offset and Gain Calibration, Capacitor Mismatch Corrections in a High Precision ADC.

**Tool used (Development tools - H/w, S/w) :** System Verilog, Cadence Simvision

**Objectives of the project :** The Project aimed at utilizing the advantages of a processor for performing computationally intense tasks in a ADC like offset and gain calibration, capacitor mismatch correction instead of the traditional combinational Digital Blocks.

**Major Learning Outcomes :** Learnt to Integrate a Processing Core to perform computationally intense tasks in a Digital Design

**Details of Papers/patents : Nil**

**Brief Description of working environment, expectations from the company :** People here are highly enthusiastic and motivated in their work and are always ready to help you with your doubts and make you understand things. They expect you to be enthusiastic and focused towards your work.

**Academic courses relevant to the project :** Digital Design, Computer Architecture

**PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU**

**FACULTY NAME: SATHISHA SHET K .**

**STUDENT NAME: APOORVA JAIN (2021AAPS2858G)**

Student Write-up

**PS-II Project Title:** Survey of High Voltage Level Shifter Architectures

**Short Summary of work done during PS-II :** The objective of this project is to go through many different IEEE papers, Texas Instruments repository, Patents of other inventors to understand and replicate those architectures of High Voltage Level Shifters using Texas Instruments' own

library and foundry devices. The main purpose of the internship was to understand how entire complex system works with explanations as to how each and every design parameter affect the overall behavior while simultaneously creating a plethora of designs with different use cases, delay and power consumption parameters for the Wide Vin Buck team to use in the future.

**Tool used (Development tools - H/w, S/w) :** Cadence Virtuoso, Layout EXL, SIMPLIS

**Objectives of the project :** Making a repository of different architectures of high voltage level shifters with different attributes like - delays, power consumption and silicon area

**Major Learning Outcomes :** Over the course of this project, seven distinct high voltage level shifter architectures were designed and implemented based on insights drawn from a wide range of IEEE research papers and patented circuits. Each architecture was carefully simulated and

**Details of Papers/patents :** IEEE papers and Texas Instruments Patents

**Brief Description of working environment, expectations from the company :** Working environment was pleasant.

**Academic courses relevant to the project :** Electrical Science, Electronic Devices, Digital Design, Microelectronic Circuits, Analog and Digital VLSI Design

**PS-II STATION : TEXAS INSTRUMENTS - ANALOG ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K.

**STUDENT NAME:** PAWAR KIRAN GANPAT (2023H1230139G)

Student Write-up

**PS-II Project Title:** Analog Applications Intern ( + Digital Design )

**Short Summary of work done during PS-II :** I made 3 PSpice Models which are released on TI website. Worked on TI's new real time project (HOT swap controller), Worked on Digital Project SerDes.

**Tool used (Development tools - H/w, S/w) :** Allegro PSpice , Verilog VIVADO

**Objectives of the project :** Making PSpice Model, RTLCode

**Major Learning Outcomes :** Industry Exposure with Real time projects

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Working environment depends on team. Few of the teams are really good in communicating. They take care about good team communications.

**Academic courses relevant to the project :** Verilog from Reconfigurable Computing

**PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU**

**FACULTY NAME: SATHISHA SHET K.**

**STUDENT NAME: DEEPIKA PANT . (2020B2A31158P)**

Student Write-up

**PS-II Project Title:** Design and Verification of Audio Amplifier IC subblocks

**Short Summary of work done during PS-II :** The project involved contributing to the development and validation of digital components within a larger system. It included both design-related tasks and verification activities, with a focus on improving efficiency and ensuring reliable functionality through structured methods and automation.

**Tool used (Development tools - H/w, S/w) :** Cadence SimVision, SystemVerilog, Cadence JasperGold

**Objectives of the project :** The project focused on contributing to the design and verification of key digital components within an audio system. It involved developing functional blocks that play a role in system stability and control, along with setting up a verification environment to validate their behavior. Another important aspect was improving efficiency by introducing some level of automation into the workflow.

**Major Learning Outcomes :** The internship offered valuable exposure to practical digital design and verification processes. It provided opportunities to apply theoretical concepts, work with industry tools, and understand how different parts of a system interact.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** friendly working environment. helpful teammates, good work life balance.

**Academic courses relevant to the project :** Computer Architecture, Digital Design

**PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU**

**FACULTY NAME: SATHISHA SHET K .**

**STUDENT NAME: ASHISH YAKKALA (2020B4AA0489H)**

Student Write-up

**PS-II Project Title:** SoC RTL Integration

**Short Summary of work done during PS-II :** The work done involves several domains like DFT and RTL. The projects involve fields like LBIST implementation, ATPG testing, and SoC integration.

**Tool used (Development tools - H/w, S/w) :** Cadence JasperGold, Modus and Genus

**Objectives of the project :** RTL integration of several design blocks in an SoC environment

**Major Learning Outcomes :** RTL Integration, DFT basics

**Details of Papers/patents : Nil**

**Brief Description of working environment, expectations from the company :** The working environment at TI is excellent, with several people working together to solve any opportunity encountered throughout the internship. My teammates have been very patient and supportive in ramping me up to speed on relevant flows involved in the company. While due diligence is expected from our side, it is assisted by the great environment provided by my team. I got to work on several projects dealing with DFT and RTL integration, in turn having to work with different sets of people, boosting collaboration and communication.

**Academic courses relevant to the project :** Digital Design, Computer Architecture, Analog & Digital VLSI Design

**PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU**

**FACULTY NAME: SATHISHA SHET K .**

**STUDENT NAME: SIDDARTH ANNAMANENI (2021A3PS1551H)**

Student Write-up

**PS-II Project Title:** Formal verification of digital blocks

**Short Summary of work done during PS-II :** Have done verification of memory and dft blocks with different eda tools and also worked on high speed interface verification.

**Tool used (Development tools - H/w, S/w) :** Jaspergold,virtuoso and simvision

**Objectives of the project :** Design verification

**Major Learning Outcomes :** Design verification

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company :** Very good working environment and excellent people to work around and very friendly.

**Academic courses relevant to the project :** Digital electronics

**PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K.

**STUDENT NAME:** PATHAPATI SUBBU VARUN SAI (2021A3PS2487H)

Student Write-up

**PS-II Project Title:** HSMT using SerDes Interface for automotive applications

**Short Summary of work done during PS-II :** Worked on media transmission and exchange in automotive infotainment systems using serdes Interface. The purpose of the project is to conduct high- speed media transmission while ensuring dc balancing and reducing bit error rate. For this we planned to design the block modules necessary to satisfy the requirements of it. Had to make a system which recognizes errors in bit pattern using appropriate control symbols and then rectify them. This included the minimization of the error in bits (Bit Error Rate) by increasing baud rate (symbols/sec) and trying to jumble/encode the bits for minimal error occurrence Proper usage of PAM-4 modulation for lower eye-jitter in eye-diagram.

**Tool used (Development tools - H/w, S/w) :** Vivado Xilinx, Asterisk

**Objectives of the project :** Had to develop a protocol from scratch which was mainly focused on reduced bit error rate and optimization of dc balancing across the transmission of media.

**Major Learning Outcomes :** Got proficiency in efficient HDL/SV coding with synthesis in mind. Got a clear idea of how a single code error is not to be neglected. Learned to optimize code for minimal time constraint situations.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The work environment here is pretty good. They have no obligations to complete a task by EOD except if there is a demanding deadline for the team. The company mainly expects us to freely communicate and engage with our mentor and team for better understanding of the workflow and obtain results as per their requirements.

**Academic courses relevant to the project :** Digital Design, Computer Architecture

**PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K .

**STUDENT NAME:** AISHWARYA SUDIPTO NAG (2021AAPS1988G)

Student Write-up

**PS-II Project Title:** MATLAB Modelling of HDL Code

**Short Summary of work done during PS-II :** I was provided an IP being used in an ongoing project in TI. My job was to perform the design verification of the IP by importing the MATLAB Simulink Model for it and running different test cases as per the system spec to ensure it is working properly.

**Tool used (Development tools - H/w, S/w) :** Verilog, MATLAB, Simulink

**Objectives of the project :** Design Verification of IP

**Major Learning Outcomes :** Verilog, Design Verifi

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Working environment was relaxed where they gave you sufficient time to complete your deliverables. In texas, they let your ideas grow, make mistakes and learn from the mistakes. There are plenty of people willing to help - you just have to figure out the right questions and the right person for the question.

As per the company's expectation, they expect a disciplined, demanding working employee who more than anything - is willing to learn.



**Academic courses relevant to the project :** Digital Design, Computer Architecture, Control Systems, ADVD

**PS-II STATION : TEXAS INSTRUMENTS -- DIGITAL ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K .

**STUDENT NAME:** SOHAM PAUL (2023H1400126P)

Student Write-up

**PS-II Project Title:** Implementation of DFT block

**Short Summary of work done during PS-II :** Implemented the dft engine which will be used in a chip for calculation of magnitude and phase given the adc output from another corresponding block. Implemented the dft block using goertzel algorithm which makes dft calculation of a single frequency very efficient compare to the traditional butterfly fft approach. Further improved the design using a windowing block before the goertzel block to take care of all possible adc input cases.

**Tool used (Development tools - H/w, S/w) :** Cadence xcelium, MATLAB

**Objectives of the project :** To design an efficient DFT block for single frequency magnitude and phase calculation

**Major Learning Outcomes :** Learnt how designing is done in the organization, the whole workflow, from presenting the ideas to final implementation

**Details of Papers/patents :** 1. Goertzel's original 1958 paper (foundational):

Goertzel, G. (1958, January). An algorithm for the evaluation of finite trigonometric series. American Mathematical Monthly, 65(1), 34–35.

2. Implementation-focused chapter (2008):

The Goertzel Algorithm.

**Brief Description of working environment, expectations from the company :** Very helpful mentor, manager and colleagues. Proper guidance given in every step.

**Academic courses relevant to the project :** DSP, VLSI architecture

**PS-II STATION : TEXAS INSTRUMENTS - EMBEDDED SOFTWARE ,BENGALURU**

**FACULTY NAME: SATHISHA SHET K .**

**STUDENT NAME: SPARSH MITTAL (2020A3PS1762G)**

Student Write-up

**PS-II Project Title:** Making embedded Linux Drivers for transreceivers

**Short Summary of work done during PS-II :** I packaged the drivers in user space using Petalinux, completing the work done by various members of our team, then learned and packaged it in Yocto which is more customizable, then finally put them in kernel space

**Tool used (Development tools - H/w, S/w) :** Ubuntu, petalinux, Yocto, VS Code, ZCU102 board, AFE board

**Objectives of the project :** To learn about device drivers and how and why to package them in Linux

**Major Learning Outcomes :** I learned how and why we package our device drivers in Linux, how to package using different build systems like Petalinux and Yocto, why it is ideal to package the drivers in kernel space and how to do that.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment of the company was very good. There was flexibility in timings and work from home, the mentors were accessible and encouraged questions and cafeteria food was good. The expectations were outlined at the start that works should be done at time and if you are stuck somewhere clear the doubts immediately.

**Academic courses relevant to the project :** Computer Architecture

**PS-II STATION : TEXAS INSTRUMENTS - EMBEDDED SOFTWARE ,BENGALURU**

**FACULTY NAME: SATHISHA SHET K .**

**STUDENT NAME: SARANSH GAUTAM . (2020B4A31476P)**

Student Write-up

**PS-II Project Title:** Development of Applications for Low Power Radars

**Short Summary of work done during PS-II :** Developed Demo Applications that worked on bare-metal [NoRTOS] instead of FreeRTOS OS, hence reducing memory consumption by applications on TI Radars by removing the underlying OS layer. Also made a new demo application that beats the current best demo for tracking people using TI Radars. This was done by integration of Capon Beamforming Algorithm in the signal processing chain of TI Radar.

**Tool used (Development tools - H/w, S/w) :** C, Code Composer Studio

**Objectives of the project :** To develop low-memory demos for ultra-low power devices and integrate Capon Beamforming Algorithm in TI Radars for optimal Tracking

**Major Learning Outcomes :** Learned efficient low-level programming in C for embedded systems with memory and time constraints.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Fast-paced working environment for software roles with a good learning curve. Work-from-home can be taken whenever required but is not encouraged. Overall, a good, non-toxic working culture with helpful teams and managers.

**Academic courses relevant to the project :** Embedded System Design [Elective], Operating Systems, DSA

**PS-II STATION : TEXAS INSTRUMENTS - EMBEDDED SOFTWARE ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K .

**STUDENT NAME:** JAY GOYAL . (2021A7PS2418P)

Student Write-up

**PS-II Project Title:** Gaze Detection on AM62A

**Short Summary of work done during PS-II :** During the PS2, I worked to ramp up on the Edge AI platform for the AM6xA platform by TI. This concluded with me working on a Gaze Detection project which runs on the AM62A. During this, I worked on CNNs, Edge AI and learnt about other things related to the platform from my teammates.

**Tool used (Development tools - H/w, S/w) :** Edge AI TIDL Tools, PyTorch, Python

**Objectives of the project :** Understand about Edge AI offering from TI

**Major Learning Outcomes :** Understood about the Edge AI offering from TI to help perform my full time role better

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Overall, the company has an extremely nice working environment where you are not pressured into working long hours and work-life balance is values. My mentor's managing style, where he helped me where needed, did regular check-ins and everything but still showed trust in my ability, worked well with my working ethics. The team was nice and supported me whenever I needed help, both professionally and personally. All things considered, for me it was ideal.

**Academic courses relevant to the project :** Deep Learning, Embedded System Design, Software for Embedded Systems

**PS-II STATION : TEXAS INSTRUMENTS - EMBEDDED SOFTWARE ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K.

**STUDENT NAME:** SHANTANU KAMALAKAR DESHMUKH (2021AAPS2422G)

Student Write-up

**PS-II Project Title:** Scalable Test Infrastructure

**Short Summary of work done during PS-II :** Set up physical demo, learned networking, learned C7x assembly

**Tool used (Development tools - H/w, S/w) :** VSCode, Linux

**Objectives of the project :** Speeding up and modularising existing testing setup

**Major Learning Outcomes :** C/C++

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** - The training provided valuable insight into how theoretical knowledge is applied in practical scenarios, improving my analytical and critical-thinking skills.

**Academic courses relevant to the project :** Embedded Systems Design

**PS-II STATION : TEXAS INSTRUMENTS -- TECHNICAL SALES REPRESENTATIVE ,BENGALURU**

**FACULTY NAME:** SATHISHA SHET K .

**STUDENT NAME:** AKSHAT GARG . (2021AAPS0261P)

Student Write-up

**PS-II Project Title:** Winning New Business Opportunities in Industrial Market

**Short Summary of work done during PS-II :** The work was exciting, challenging and dynamic. i had to interact with many high-value customers at some of the largest MNCs in India and drive business for TI there.

**Tool used (Development tools - H/w, S/w) :** TINA-TI, LTSpice, PSpice, Excel, Python, Power designer

**Objectives of the project :** identify and leverage new projects at various clients and win business for TI there

**Major Learning Outcomes :** improved analog electronics knowledge and communication skills

**Details of Papers/patents :** none

**Brief Description of working environment, expectations from the company :** working environment is good. The company expects the person to be engaged in customer interactions, solve customer aspects, and build good customer relations- that will help in achieving the final objective- winning revenue!

**Academic courses relevant to the project :** analog electronics, Microelectronic circuits

**PS-II STATION : TITAN COMPANY LIMITED ,HOSUR**

**FACULTY NAME:** SANTOSH SOPANRAO KHANDGAVE

**STUDENT NAME:** JOYEETA NATH . (2021A1PS2166P)

Student Write-up

**PS-II Project Title:** Plastic Extended Producer Responsibility at Titan Company Limited: Compliance and Beyond

**Short Summary of work done during PS-II :** Centered around EPR compliance and plastic reduction, the project focused on improving the EPR reporting process, ensuring compliance for the current and coming years and went beyond compliance to pilot initiatives in plastic packaging

elimination wherever possible. The project went beyond the compliance requirement of responsible usage and waste management and created a 5-year roadmap to reduce overall plastic consumption in the company significantly as outlined in section 3.5. The roadmap highlighted targets at a company level, division level and outlined the steps that could be taken by each division to meet these targets. In order to demonstrate the feasibility of the roadmap, a project to replace one of the major portions of plastic packaging was undertaken in collaboration with the Innovation team. A successful prototype was created from a bio-polymer and after further refinement and approval of the costs, it has the potential to replace up to 36% of all packaging related plastics.

**Tool used (Development tools - H/w, S/w) :** Microsoft Excel, Python

**Objectives of the project :** 1. Meeting compliance requirements and setting up streamlining processes such as data tracking and master files for EPR reporting FY 2024-25. 2. Ensuring the company is set to meet compliance requirements for FY 2025-26. 3. Creating a proactive roadmap to move from current plastic packaging consumption to significantly lesser consumption by 2030. 4. Proof of concept by implementing part of the roadmap and replacing virgin plastic packaging material by alternate materials or recycled plastics in plastic packaging.

**Major Learning Outcomes :** Stakeholder Management, Reporting, Government Mandated Compliance, Alternative Materials

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The company provided a supportive and encouraging work environment with most of the stakeholders involved cooperating to make the project a success. Clear deliverables and timelines were laid out right at the beginning of the project, enabling productive time management across the 6 months. Beyond the core project, exposure to multiple other ESG areas was provided, resulting in an immersive on ground experience of Corporate Sustainability.

**Academic courses relevant to the project :** Engineering chemistry, polymer chemistry

**PS-II STATION : TOWER RESEARCH CAPITAL, NEW YORK**

**FACULTY NAME: NEHA VINAYAK .**

**STUDENT NAME: ANISH ASHISH KASEGAONKAR . (2020B3A70785P)**

Student Write-up

**PS-II Project Title:** Enhancing task management and monitoring systems

**Short Summary of work done during PS-II :** The primary aim of the project was to evolve Tower Research Capital's task management and monitoring system so that it delivers high availability, rapid error resolution, and seamless scalability. In a high-frequency trading environment, even brief lags or undetected failures can cascade into significant performance degradation or trading losses. I learnt a lot about the monitoring systems at place at Tower, and how I can improve latencies.

**Tool used (Development tools - H/w, S/w) :** Python, C++

**Objectives of the project :** Improving the team's monitoring stack

**Major Learning Outcomes :** Learnt about integrating and deploying a new monitoring interface for trades.

**Details of Papers/patents :** N/A

**Brief Description of working environment, expectations from the company :** The North Moore Trading Team at Tower Research Capital combines quantitative expertise with a modern, container-based infrastructure. Its pleasantralized, feedback-driven culture enabled me to contribute enhancements—real-time dashboards, automated scaling, and fault-tolerant retry mechanisms—while working alongside traders and systems engineers. This environment of continuous integration, peer review, and rapid iteration provided the ideal setting to develop and deploy end-to-end monitoring improvements that directly support high-frequency trading operations.

**Academic courses relevant to the project :** Operating Systems

**PS-II STATION : TRANE TECHNOLOGIES, BENGALURU**

**FACULTY NAME: RAGHURAMAN S .**

**STUDENT NAME: DESHMUKH CHAITANYA MILIND (2023H1410077G)**

Student Write-up

**PS-II Project Title: IAQ(INDOOR AIR QUALITY)-Technology Research**

**Short Summary of work done during PS-II :** During my PS-II internship at Trane Technologies, Bangalore, I worked on projects aimed at improving Indoor Air Quality (IAQ) through advanced air filtration systems. The internship involved a comprehensive study of various filtration technologies used in HVAC systems, such as HEPA, ULPA, UV filters, ionizers, and electrostatic precipitators. I evaluated their working principles, applications, benefits, and limitations in both

residential and commercial settings. A major focus was on gas-phase filtration, which targets ultrafine gaseous pollutants not captured by traditional particle filters. I studied the use of chemical adsorbents like potassium permanganate, activated carbon, and potassium hydroxide, and explored optimal filter media combinations for specific pollutant removal. Residence time calculations were performed to determine the filter dimensions required for effective pollutant adsorption, ensuring compliance with ASHRAE standards. Additionally, I explored innovative coating technologies such as nano-silver, copper, photocatalytic, enzyme-based, and biodegradable coatings to enhance antimicrobial efficacy of filters. I analyzed their functionality, benefits, and practical applications in different environments. The project also included filter design optimization to fit spatial constraints in existing Trane HVAC units. Standard filter sizes were reviewed, and alternative orientations were proposed to achieve required residence time and efficiency without exceeding size limits. This internship provided valuable exposure to real-world IAQ challenges, combining research, engineering analysis, and design thinking to contribute toward advanced HVAC solutions.

**Tool used (Development tools - H/w, S/w) :** Microsoft Excel , Microsoft PowerPoint

**Objectives of the project :** The objective of the project was to study and evaluate various air filtration technologies, coating methods, and gas-phase filtration techniques to improve indoor air quality (IAQ). It also aimed to optimize filter design and residence time within spatial constraints of existing HVAC systems.

**Major Learning Outcomes :** Gained a comprehensive understanding of indoor air quality and various air filtration technologies used in HVAC systems. Acquired practical skills in filter design, residence time calculation, and integration of advanced coating and gas-phase filtration t.

**Details of Papers/patents :** No papers or patents were published during the course of this PS-II project. However, the work involved extensive research and analysis on air filtration technologies, gas-phase filtration media, and coating innovations, which could serve as a foundation

**Brief Description of working environment, expectations from the company :** In most cases, the evaluation does not heavily emphasize strong technical expertise; demonstrating a moderate level of technical understanding is generally considered sufficient. The primary focus tends to be on the nature and relevance of the project you are working on, along with your ability to propose innovative ideas or value-added improvements related to that project. Proactive contribution and original thinking are often viewed more favorably than purely technical depth.

**Academic courses relevant to the project :** YES



**PS-II STATION : TRANE TECHNOLOGIES, BENGALURU**  
**FACULTY NAME: RAGHURAMAN S .**  
**STUDENT NAME: VISHNU DAS M (2023H1410078G)**

Student Write-up

**PS-II Project Title: Structural Health Monitoring**

**Short Summary of work done during PS-II :** During my PS-II at Trane Technologies, I worked in the Structural Engineering team with a focus on Structural Health Monitoring (SHM). My primary responsibility was to develop an in-house SHM capability using vibration data from HVAC components. I conducted experimental modal testing using Siemens Test Lab, performing impact tests to extract natural frequencies and mode shapes. These results were validated through numerical modal analysis using ANSYS Mechanical, with correlation achieved using the Modal Assurance Criterion (MAC). I also used the ANSYS NVH Toolkit to identify optimal accelerometer locations, ensuring effective sensor placement for accurate data capture. A significant part of my contribution involved developing MATLAB scripts to automate feature extraction from vibration signals. I computed statistical features and applied Principal Component Analysis (PCA) to identify anomalies. Later, I integrated Dynamic Time Warping (DTW) and clustering techniques to classify vibration events, helping differentiate between positive and professional and abpositive and professional structural responses. In the final weeks, I explored Ansys Sherlock to understand reliability prediction and electronics-focused structural simulation, contributing to knowledge transfer efforts.

**Tool used (Development tools - H/w, S/w) :** MATLAB, ANSYS MECHANICAL, LMS TESTLAB, JUPYTER NOTEBOOK, ANSYS SHERLOCK

**Objectives of the project :** As part of the strategic Structural Health Monitoring initiative, I led the development of in-house algorithmic capabilities by creating MATLAB scripts for vibration signal feature extraction, PCA, and DTW-based clustering; performed impact testing and modal analysis on HVAC components using Siemens TestLab and ANSYS; correlated experimental and simulation data using Modal Assurance Criteria (MAC); identified optimal accelerometer locations using the ANSYS NVH Toolkit.

**Major Learning Outcomes :** • Signal Processing & Feature Extraction

Developed MATLAB scripts to extract statistical features from vibration data and applied PCA (Principal Component Analysis) to detect anomalies in structural behavior.

- Data-Driven Fault Diagnosis

Applied Dynamic

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at Trane Technologies was collaborative, professional, and supportive. I had access

to industry-standard tools and guidance from experienced mentors. The company expected consistent progress, initiative in opportunity-solving, timely documentation, and active participation in reviews and discussions.

**Academic courses relevant to the project :** FEM, DYNAMICS AND VIBRATION

**PS-II STATION :** UBER - SOFTWARE ENGINEER, BENGALURU ,BENGALURU

**FACULTY NAME:** AKSHAYA G .

**STUDENT NAME:** ARYAMAN CHAUHAN . (2020B5A72006P)

Student Write-up

**PS-II Project Title:** Improvement of Vendor and System Resilience

**Short Summary of work done during PS-II :** Great Environment to Learn and Develop skills

**Tool used (Development tools - H/w, S/w) :** Git, GoLand, VSCode, Cadence

**Objectives of the project :** Improving System's ability to deal with System and Vendor Failures

**Major Learning Outcomes :** Coding, SWE Skills, Soft Skills

**Details of Papers/patents :** N/A

**Brief Description of working environment, expectations from the company :** Great Learning Environment, with supporting Team Members and helpful seniors

**Academic courses relevant to the project :** Yes

**PS-II STATION :** UBS - REPORTING AND ANALYTICS, PUNE

**FACULTY NAME:** NIRANJAN SWAIN .

**STUDENT NAME:** SAYAN JAYANTA RAY (2020B2A32496H)

Student Write-up

**PS-II Project Title:** Reporting & Analytics

**Short Summary of work done during PS-II :** Worked with cross functional teams to support Investment Banking activities. Analyzed Investment Banking Dashboards in MS PowerBI and provided analytical insights to shareholders. Managed Financial data flow using AutoSys and validated data using SQL, ensuring timely dashboard refreshes.

**Tool used (Development tools - H/w, S/w) :** SQL, MS PowerBI, AutoSys

**Objectives of the project :** To manage the financial data flow and data accuracy in Investment Banking Dashboards

**Major Learning Outcomes :** Developed skill set for financial analysis and soft skills like communication. Got to interact with people in high positions, and to collaborate with multiple cross functional teams.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Very good work culture, and efficient teamwork and leadership.

**Academic courses relevant to the project :** Yes

**PS-II STATION : UBS- FINANCE LIQUIDITY AND FUNDING MODELLING, POWAI**

**FACULTY NAME:** NIRANJAN SWAIN .

**STUDENT NAME:** CHETAN VISHNU MAREM (2020B1A42399H)

Student Write-up

**PS-II Project Title:** Liquidity, Funding, Modelling and Governance

**Short Summary of work done during PS-II :** I was part of the Liquidity, Funding, Modelling, and Governance team which comes under the Group Treasury, I worked on tools to assess liquidity requirements and funding buffers under stress scenarios. I used Python and Excel to validate key metrics, analyze discrepancies, and track cash flows across trades and products. The role gave me hands-on experience with regulatory stress models and internal reporting frameworks.

**Tool used (Development tools - H/w, S/w) :** Excel, Python, SQL, Power BI

**Objectives of the project :** To build an initial margin model which helps to maintain an optimal buffer during stress scenarios

**Major Learning Outcomes :** Understanding how exactly the larger banks maintain liquidity and how the stress buffer changes.

Since the majority of the work was on Excel, I gained good expertise in it.

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** The team was quite relaxed and balanced and flexible. Ensure that you communicate your thoughts about your work.

**Academic courses relevant to the project : Yes**

**PS-II STATION : UBS- LIQUIDITY AND CONTROL (FINANCE), PUNE**

**FACULTY NAME: NIRANJAN SWAIN .**

**STUDENT NAME: SIDDHARTH JAIN . (2020B2A41955P)**

Student Write-up

**PS-II Project Title: Liquidity Control**

**Short Summary of work done during PS-II :** 1. Automate the manual tasks and processes to reduce chances of human error and time take, thus increasing effectiveness. 2. Understanding of Liquidity concepts and reporting of LCR (Liquid Coverage Ratio) to the regulators.

**Tool used (Development tools - H/w, S/w) :** Power BI, MicroStrategy (MSTR), SAP Business Objects (BO), MS Excel

**Objectives of the project :** 1. Automate the manual tasks and processes to reduce chances of human error and time take, thus increasing effectiveness. 2. Understanding of Liquidity concepts and reporting of LCR (Liquid Coverage Ratio) to the regulators.

**Major Learning Outcomes :** VBA, MS Excel, Liquidity Concepts

**Details of Papers/patents : N.A**

**Brief Description of working environment, expectations from the company :** I learned how to collaborate with people from different backgrounds and adapt my communication style to ensure smooth teamwork and productivity.

**Academic courses relevant to the project :** Securities Analysis and Portfolio Management, Derivatives and Risk Management, Financial Management, Fundamental of Finance and Accounting

**PS-II STATION : UBS- LIQUIDITY AND CONTROL (FINANCE), PUNE**

**FACULTY NAME: NIRANJAN SWAIN .**

**STUDENT NAME: BHAMARE YASH PRASHANT (2020B2A80760G)**

Student Write-up

**PS-II Project Title:** Reporting and Automation Liquidity and Funding

**Short Summary of work done during PS-II :** Automated lots of manual reports

**Tool used (Development tools - H/w, S/w) :** Excel, VBA

**Objectives of the project :** Automation and reporting of financial reports

**Major Learning Outcomes :** Leaned different automation techniques VBA,Excel , PBI

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The internship helped me understand the importance of clear communication, teamwork, and maintaining a positive attitude in achieving common goals.

**Academic courses relevant to the project :** Yes

**PS-II STATION : UBS- QRM, MUMBAI**

**FACULTY NAME: NIRANJAN SWAIN .**

**STUDENT NAME: HARI ADITYA CHAVALI (2020B3A10596H)**

Student Write-up

**PS-II Project Title:** Market Risk Data Reportage

**Short Summary of work done during PS-II :** I've been able to integrate seamlessly into the team, and provide the team value via performing time-bound data processing, verification, and validation for various asset classes, to aid in the daily and weekly publication processes for VaR calculations. I've been able to apply my learnings in the various subjects of finance, especially FRAM, to real-life scenarios in the market, and understand how an investment bank efficiently manages market scenarios with stakeholder or investor expectations while also maintaining a consistent internal process. I've been able to see how models are developed, deployed, maintained, and adjusted according to various situations in an investment banking scenario. This involves a collaboration between financial analysts, computer programmers, and market experts to develop mathematically involved financial models.

**Tool used (Development tools - H/w, S/w) :** Proprietary software

**Objectives of the project :** To streamline the process of collection, validation, and publication of market data for group functions, specifically VaR calculations for regulatory purposes, on a time- bound basis for various asset and risk classes.

**Major Learning Outcomes :** Practical applications of VaR calculation methods  
Documentation skills, primarily LaTeX  
Database management via Excel

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The UBS offers interns a dynamic, inclusive, and supportive environment designed to foster both professional and personal growth. From day one, interns participate in an interactive induction program, gaining exposure to all aspects of life at UBS and receiving ongoing training to build essential skills. Interns are expected to demonstrate professionalism, adaptability, and a strong work ethic, while actively seeking out learning opportunities and contributing to meaningful projects.

Mentorship is a key feature; each intern is supported by a dedicated line manager, a buddy, and the Junior Talent team, ensuring guidance and feedback throughout the program. UBS encourages networking through events, workshops, and social activities, helping interns build valuable connections across the global organization. The culture emphasizes integrity, collaboration, and client-centricity, with a focus on innovation and sustainability.

**Academic courses relevant to the project :** FoFA, DRM, SAPM, FRAM

**PS-II STATION : UBS- QRM, MUMBAI**

**FACULTY NAME: NIRANJAN SWAIN .**

**STUDENT NAME: GAURAV MISHRA . (2020B3A70917P)**

Student Write-up

**PS-II Project Title:** f20200917@pilani.bits-pilani.ac.in

**Short Summary of work done during PS-II :** A dual-track methodology combined rigorous back- testing and sensitivity analysis with large-scale data engineering. Historical market and trade datasets were ingested through an R–Python pipeline that performed completeness, accuracy and outlier checks before feeding Monte-Carlo exposure simulations. For SEPE, new stress scenarios covering currency, commodity and credit-spread shocks increased tail-risk capture by 18 per cent. For OTC-UM, parallelized valuation routines lowered end-of-day runtimes from 4 h 12 m to 2 h 28 m. Validation metrics—including Durbin–Watson statistics for serial correlation and out-of-sample error bands—confirmed statistical robustness. Process automation formed a second pillar of the work. Parameter-driven scripts now generate fully formatted Excel

dashboards and PowerPoint exhibits, cutting manual reporting effort by approximately 70 per cent. In addition, a modular data-validation library, written in Python and integrated with UBS's risk platform, streamlines future model updates and audit trails. The project delivered tangible operational benefits: faster exposure aggregation, higher data integrity, and transparent documentation that meets both internal model-risk-governance and external supervisory expectations. Beyond these deliverables, the engagement deepened participants' expertise in quantitative risk modelling, advanced analytics, and enterprise-scale automation—capabilities that are directly transferable to broader valuation-control and risk-management functions.

**Tool used (Development tools - H/w, S/w) :** Python, R Studio, Microsoft Excel, Microsoft PowerPoint, SQL, Oracle Database

**Objectives of the project :** This Practice School II project, completed in partnership with UBS Group AG, strengthened the bank's counterparty-credit-risk toolkit by validating and enhancing two enterprise models— the Stressed-Effective Positive Exposure (SEPE) engine and the Over- the-Counter Trades Umbrella Model (OTC-UM). Operating at the intersection of quantitative finance and regulatory compliance, the assignment pursued four objectives: (i) confirm model soundness against Basel III standards, (ii) elevate data-quality controls, (iii) 4 optimize computational efficiency, and (iv) automate stakeholder reporting.

**Major Learning Outcomes :** This project offered invaluable technical and professional learning opportunities. Technically, our team gained advanced skills in R programming, statistical modelling, and automation. Our team also deepened our understanding of risk modelling techniques,

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment is great. The team seniors are very helpful and approachable. The work starts by giving basic reading materials to the interns so that they get familiarized with the work of the team. The documents are very exhaustive and contain minute details of the models of the team. Then the training materials are given so that interns can start learning the technical skills required for the role and are also given working files of the team seniors so that they can correlate the training with the work required of them. Sufficient time (1-2 months) is given so that the interns are ready to work on real incoming projects and deliver high-quality solutions. The company expects high-quality deliverables from the interns once the training is done, but any time the intern is stuck, the team seniors and manager are always available to help them.

**Academic courses relevant to the project :** DRM and FRAM

**PS-II STATION : UBS- RAS (FINANCE), PUNE**

**FACULTY NAME: NIRANJAN SWAIN .**

**STUDENT NAME: RISHABH TALWAR (2021A4PS3070H)**

Student Write-up

**PS-II Project Title: STRATEGIC FINANCIAL REPORTING**

**Short Summary of work done during PS-II :** Automating Hierarchies :- Worked on automating two Hierarchy systems – Unified Account Hierarchy (UAH) and External Function Hierarchy (EFH) to reduce manual effort and improving efficiency and accuracy of the system. Optimizing Data Quality Checks:- Streamlined the daily checks and AdHoc file uploads by automating the process to save time and improve efficiency.

**Tool used (Development tools - H/w, S/w) :** MS Excel, MS Powerpoint, Enterprise Data Store, Microstrategy, SQL, Python, Jira, Autosys

**Objectives of the project :** Assistance in Data Governance by ensuring the accuracy and integrity of data feeds into the strategic reporting system, maintaining dependable data for reporting purposes

**Major Learning Outcomes :** AutoSys Application: Used AutoSys to streamline and monitor essential business workflows, ensuring smooth and efficient data operations.

Dashboard Management with Power BI: Utilized Power BI to validate daily and monthly dashboards, providing stakeholder.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** During my internship, I had the opportunity to work in a highly supportive and collaborative environment that greatly contributed to my personal and professional growth. The team fostered open communication, where ideas and questions were always welcomed and encouraged. Senior members were approachable and took the time to mentor and guide me through complex tasks, ensuring I gained a clear understanding of both the technical and strategic aspects of my work. Team meetings were inclusive and engaging, often sparking insightful discussions that led to better opportunity-solving and innovation. Everyone was encouraged to share their perspective, regardless of their role or experience level, which created a strong sense of belonging and mutual respect.

The work culture emphasized teamwork over individual competition, and colleagues often collaborated across departments to meet common goals. Regular check-ins and constructive feedback sessions helped maintain clarity and alignment, while also promoting continuous learning.

**Academic courses relevant to the project : Yes**



**PS-II STATION : UDAAN ,BENGALURU**

**FACULTY NAME: RAMESH VENKATRAMAN .**

**STUDENT NAME: KOSURI GYAN SUMANYU (2020B5A42176H)**

Student Write-up

**PS-II Project Title:** Demand forecasting of FMCG products and inventory management

**Short Summary of work done during PS-II :** During my internship at Udaan, I worked on optimizing PO coverage and improving demand forecasting for FMCG sales, focusing on Coca- Cola SKUs. I cleaned and analyzed sales data, implemented forecasting models like Holt-Winters and ARIMA, and evaluated their performance. I also experimented with a 7-day moving average model to compare predictive accuracy. My work included developing an interactive Power BI dashboard to visualize model outputs and track forecasting performance across regions and warehouses. The goal was to support better inventory planning and reduce stockouts by enabling data-driven decisions for procurement and distribution teams.

**Tool used (Development tools - H/w, S/w) :** Python, ML, SQL, Power BI and Excel

**Objectives of the project :** To improve demand forecasting accuracy and optimise purchase order coverage for FMCG products using data analytics and predictive modelling.

**Major Learning Outcomes :**

I learned how to clean and analyse sales data, apply forecasting models like ARIMA and Holt- Winters, evaluate model accuracy, and build interactive dashboards. This helped me understand real-world demand forecasting, inventory optimization.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The work environment was pretty good, the mentor, managers and seniors all of them were supportive, they helped me build my soft skills. My expectation from the company was to learn how data analytics and data driven insights help a company to make better decisions.

**Academic courses relevant to the project :** Fundamentals of Business Analytics, Manufacturing Management, Supply chain management

**PS-II STATION : UST- SI DIGITAL TRANSFORM ,THIRUVANANTHAPURAM**

**FACULTY NAME:** SINDHU S .

**STUDENT NAME:** ADHIRAJ GUPTA (2020B2A11998G)

Student Write-up

**PS-II Project Title:** RAG Chatbot

**Short Summary of work done during PS-II :** Made a chatbot application end to end for their internal website. Got opportunity to learn about Azure openai and how RAG functions.

**Tool used (Development tools - H/w, S/w) :** Vscode, python, API, react, js

**Objectives of the project :** Make RAG Chatbot for internal job posting website

**Major Learning Outcomes :** GenAI, python

**Details of Papers/patents : -**

**Brief Description of working environment, expectations from the company :** Very relaxed and balanced, no deadlines as such, no strict timings

**Academic courses relevant to the project :** CS F111

**PS-II STATION : VINJEY SOFTWARE SYSTEMS PVT. LTD., BENGALURU**

**FACULTY NAME:** SATYA SUDHAKAR YEDLAPALLI .

**STUDENT NAME:** UDAYAGIRI ADISHREYES KUMAR . (2020B5AA0915P)

Student Write-up

**PS-II Project Title:** Characterization of Arm Cortex M Gen-II processors

**Short Summary of work done during PS-II :** I characterized the Arm Cortex M85 processor, analysis all the instructions in the ISA and their execution stages.

**Tool used (Development tools - H/w, S/w) :** Renesas RA8M1 Development Board

**Objectives of the project :** To characterize the Arm Cortex M Gen-II processors

**Major Learning Outcomes :** Got an overview of modern MCU's, how they are designed based on the performance and power requirements.

**Details of Papers/patents :-**

**Brief Description of working environment, expectations from the company :** It is a very small company with only three employees. But the CEO is very sensible and understanding, it's relaxed and balanced environment. You can even talk to him anytime.

**Academic courses relevant to the project :** Computer Architecture

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: PRAJWAL NAKIL . (2020B1AA1379P)**

Student Write-up

**PS-II Project Title:** Understanding Orders BFF

**Short Summary of work done during PS-II :** At Walmart, I contributed to backend operations with a focus on shipment processing automation and integration. I developed and maintained utilities using Apache POI to process XLS files, triggering downstream service calls (ORION) to update shipment statuses in real time. I implemented robust error handling and logging mechanisms to ensure accurate delivery updates and traceability. My work streamlined logistics workflows, reduced manual errors, and improved operational efficiency across the supply chain.

**Tool used (Development tools - H/w, S/w) :** Java, React.js, IntelliJ

**Objectives of the project :** Refactoring

**Major Learning Outcomes :** Java, React.js, REST APIs

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Walmart fosters a fast-paced, performance-driven environment that emphasizes ownership, collaboration, and customer-centric innovation. The company encourages employees to take initiative, deliver scalable solutions, and contribute to cross-functional goals. Clear communication, accountability, and continuous improvement are core expectations. The work culture is structured yet flexible, with a strong focus on data-driven decision-making, process automation, and delivering measurable impact across the retail supply chain.

**Academic courses relevant to the project :** Object Oriented Programming, Database management system

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: ANIMESH KUMAR AGRAWAL (2020B4A32030H)**

Student Write-up

**PS-II Project Title:** Fraud Detection in Expense Reports

**Short Summary of work done during PS-II :** The project focuses on building a system that leverages machine learning to detect patterns or anomalies. It also includes backend development, API creation to power the dashboard.

**Tool used (Development tools - H/w, S/w) :** Spring boot, Tensorflow, Optuna etc.

**Objectives of the project :** Build ML Models for the specific task. Build the backend system to power the dashboard.

**Major Learning Outcomes :** During my technical internship at a corporate giant, I gained hands- on experience with industry-standard tools and frameworks, improved my understanding of clean code practices, and learned how to build scalable backend systems.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Work environment can get somewhat overwhelming especially if you're new to corporate.

**Academic courses relevant to the project :** OOPS, Machine Learning

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: SUBHAM CHAKRAVORTY (2021A3PS2702G)**

Student Write-up

**PS-II Project Title:** Creation and Publication of a Reusable React Component Library

**Short Summary of work done during PS-II :** My project at Walmart Global Tech involved creating and publishing a reusable React component library. Some key contributions include developing standardized React components, migrating JavaScript to TypeScript for improved code quality,

implementing a functional search box with pagination, and integration with a mock API server. I also focused on packaging React components into a npm library, streamlining the publishing process to Walmart's internal registry with CI/CD tools, and achieving over 85% unit test coverage using Vitest. These efforts significantly enhanced the functionality, maintainability, and user experience of Walmart's applications.

**Tool used (Development tools - H/w, S/w) :** Visual Studio Code, Google Chrome, React Developer Tools, Jira, Confluent

**Objectives of the project :** Creating and publishing a library of react components to be used in multiple applications to reduce development time and standardize testing.

**Major Learning Outcomes :** Learnt about frontend development using technologies like React, Typescript/JavaScript. Learnt about unit testing and frameworks like Vitest. I also learnt how to create npm packages and publish them.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment of the company is good. All my teammates were very helpful. My manager and team lead were also very supportive and always open to feedback. I was given sufficient time for learning.

**Academic courses relevant to the project :** Foundations of Data Structures & Algorithms, Object Oriented Programming, Operating Systems, Computer Programming

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: ARIN NIGAM (2021A3PS2877G)**

Student Write-up

**PS-II Project Title:** Seller Risk Lifecycle

**Short Summary of work done during PS-II :** During my internship at Walmart Global Tech in the Seller Risk Engineering team, I worked on backend development and regression automation. Initially, I contributed to the internal Confido Admin Portal, developing APIs using Spring Boot and Java and ensuring integration with the frontend. In the latter half, I focused on building a regression automation pipeline to validate risk strategies. This involved fetching production data, generating JSON payloads, and using Airflow DAGs to execute workflows, which processed datasets stored in GCS and wrote outputs to BigQuery. The pipeline eliminated manual testing

post-deployment and generated reports based on DAG status. I also documented the complete workflow on Confluence and completed all final deliverables before offboarding.

**Tool used (Development tools - H/w, S/w) :** Spring Boot, Java, IntelliJ IDEA, Postman, GitHub, Jira, Confluence, WCNP, Concord, Airflow, Google Cloud Platform (BigQuery, GCS), Akeyless ( Security Vault Platform )

**Objectives of the project :** To automate regression testing for seller-risk workflows, ensure seamless backend-to-frontend integration, and reduce manual testing effort through robust cloud-based pipelines.

**Major Learning Outcomes :** Gained practical experience in backend microservices development using Spring Boot.

Understood CI/CD practices through WCNP and Concord.

Built and automated cloud-based regression pipelines using Airflow, GCS, and BigQuery. Improved collaboration.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment at Walmart was collaborative, inclusive, and fast-paced. I was treated as a full-time engineer and was expected to take ownership of my deliverables. Regular standups, mentorship from senior engineers, and open communication helped me ramp up quickly. The company provided all the necessary tools and access, and I had the opportunity to contribute to meaningful production-level features. The leadership was approachable, and regular syncs helped align project goals. The hybrid model, with three days onsite, offered a good balance between productivity and team bonding.

**Academic courses relevant to the project :** Object-Oriented Programming, Database Systems, Cloud Computing, Operating Systems, Computer Networks

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT Name: ANUSHKA AGRAWAL (2021A3PS2881G)**

Student Write-up

**PS-II Project Title: Ad tech**

**Short Summary of work done during PS-II : Na**

**Tool used (Development tools - H/w, S/w) :** Na

**Objectives of the project :** Decrease overall time to retrieve data

**Major Learning Outcomes :** The experience taught me how to take initiative, handle responsibilities independently, and remain composed under pressure. It contributed greatly to my personal and professional growth.

**Details of Papers/patents :** Na

**Brief Description of working environment, expectations from the company :** The experience taught me how to take initiative, handle responsibilities independently, and remain composed under pressure. It contributed greatly to my personal and professional growth.

**Academic courses relevant to the project :** Yes

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: MILIND GUPTA (2021A3PS2981H)**

Student Write-up

**PS-II Project Title:** Payroll

**Short Summary of work done during PS-II :** Scala,spark,airflow, python ,big query ,gcp,tableau

**Tool used (Development tools - H/w, S/w) :** Vs code ,inteliji,gcp,airflow

**Objectives of the project :** N/A

**Major Learning Outcomes :** Scala,spark,airflow, python ,big query ,gcp,tableau

**Details of Papers/patents :** N/a

**Brief Description of working environment, expectations from the company :** Good company

**Academic courses relevant to the project :** Oops

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: ATHARVA VINOD DASHORA (2021A7PS0127H)**

Student Write-up

**PS-II Project Title:** Web performance optimization

**Short Summary of work done during PS-II :** looked into ways to improve key performance metrics

**Tool used (Development tools - H/w, S/w) :**

**Objectives of the project :** Improve LCP and other key performance metrics

**Major Learning Outcomes :** I improved my technical knowledge and learned how to collaborate effectively with colleagues.

**Details of Papers/patents : none**

**Brief Description of working environment, expectations from the company :** working environment was very supportive with everyone helping out with whatever aspects i might have had.

**Academic courses relevant to the project :** software engineering

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: KAMALESH RAM R (2021A7PS0286H)**

Student Write-up

**PS-II Project Title:** STFC-EBS-Magellan

**Short Summary of work done during PS-II :** The objective was to automate financial reconciliation processes using Robotic Process Automation (RPA), with Microsoft Power Automate as the primary tool. Key contributions included the development of the “Validator” bot, which eliminated a manual daily validation task, improving data accuracy and reporting efficiency. Reconciliation queries were optimized through a shift from cell-by-cell to sheet-by-sheet processing, resulting in a 91.6% reduction in execution time—from over 3 hours to under

15 minutes. A Proof of Concept (PoC) for the Sam’s Club team was also implemented, demonstrating the scalability of the automation framework. Overall, the project achieved



significant reductions in manual effort and processing time, enhanced data integrity, and laid the foundation for broader automation adoption within Walmart's financial operations.

**Tool used (Development tools - H/w, S/w) :** PowerAutomate, Python, Google ADJ

**Objectives of the project :** To automate funding data extraction from AMEX, PayPal websites

**Major Learning Outcomes :** How to correlate and understand business requirements from the teams and design according to their requirement

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** It was well structured and the manager was very much accommodating of our preferences and requirements. The entire team helped us even when we had any doubts or blockers. To summarize, I would say this was definitely a positive work environment.

**Academic courses relevant to the project :** OOP, DBMS, DSA, ML

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: ABIRAM SANKAR MONAVARTHI (2021A7PS0329H)**

Student Write-up

**PS-II Project Title:** Unit Testing, API contracts using Springboot and UI for a React application.

**Short Summary of work done during PS-II :** Wrote over 120 Unit tests for a legacy application. Used React to build webpage. Used Springboot to create API contracts for the same web page.

**Tool used (Development tools - H/w, S/w) :** Mockito, React, Springboot, MongoDB

**Objectives of the project :** Unit testing for a legacy application. Using React to create a dynamic webpage

**Major Learning Outcomes :** Imp of UTs, Writing API contracts and building web pages using React

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The expectations were a good standard, which motivated us to work demanding every day. The social environment was very lively and outgoing.

**Academic courses relevant to the project :** OS, DSA, DBMS

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: PATEL TEERTH VASANT (2021A7PS2090H)**

Student Write-up

**PS-II Project Title:** Driver Management System for Last Mile Delivery

**Short Summary of work done during PS-II :** The enhancements—Swagger UI integration, robust exception handling, Kafka event improvements, and SMC adoption—transformed the DMS into a secure, scalable, and well-documented platform for managing drivers.

**Tool used (Development tools - H/w, S/w) :** Springboot, postman, Lenses, kubernetes Dashboard, confluence

**Objectives of the project :** Make changes to cut costs, improve compliance, and empower both developers and business teams.

**Major Learning Outcomes :** Experience at Walmart Global Tech demonstrated how leveraging modern development practices and tools can revolutionize backend services, contributing to Walmart's strategic goals in last mile delivery and customer satisfaction.

**Details of Papers/patents :** Not Applicable

**Brief Description of working environment, expectations from the company :** Walmart Global Tech offers an innovative, collaborative, and inclusive work environment focused on solving large-scale, real-world opportunities using cutting-edge technologies like cloud computing, AI, and data science. The culture promotes agility, continuous learning, and cross-functional teamwork, with an emphasis on diversity, open communication, and shared goals.

Employees are empowered to take ownership, innovate, and contribute to impactful solutions that serve millions globally. In return, Walmart expects a commitment to technical excellence, adaptability, accountability, and alignment with its core values—integrity, customer focus, and a drive to create meaningful value.

Team members are encouraged to challenge the status quo, learn continuously, and support the company's mission of helping people save money and live better. Walmart Global Tech also provides strong opportunities for professional growth, mentorship, and purposeful work, making it an ideal environment for tech professionals seeking global impact.

**Academic courses relevant to the project :** oops, Dbms.

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: AVANI AGARWAL (2021A7PS2585G)**

Student Write-up

**PS-II Project Title:** Uber pipeline

**Short Summary of work done during PS-II :** Worked on documentation of code base, setup airflow instance and resolved errors, helped in deployment and testing.

**Tool used (Development tools - H/w, S/w) :** Scala, pyspark, airflow, Google cloud,

**Objectives of the project :** Work on deployment of Uber pipeline

**Major Learning Outcomes :** Learnt about different technology used in industry, how deployment is done, debugging and how to overcome blockages.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The team was very helpful and guided me throughout the internship. Explained me the work and made me comfortable in the new environment. The work was a bit slow in the start but towards the end I started getting good amount of work.

**Academic courses relevant to the project :** OS, Computer networks

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: KISLAY RANJAN NEE TANDON (2021A7PS2627G)**

Student Write-up

**PS-II Project Title:** Software Development Intern

**Short Summary of work done during PS-II :** We developed Walmart internal forecasting tool, using open source tool to replace a third party service, which is saving them 20 million dollars in 5 years. It involving developing everything from scratch from Front-end to backend.

**Tool used (Development tools - H/w, S/w) :** React, Front-end dev, Machine Learning,

**Objectives of the project :** To develop internal forecasting platform

**Major Learning Outcomes :** AI/ML , Front-end

**Details of Papers/patents :** None

**Brief Description of working environment, expectations from the company** I learned the importance of teamwork, time management.

**Academic courses relevant to the project :** ML, PnS, Stat related courses

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME:** SHWETHA VITTAL

**STUDENT NAME:** PRANAV DEEPAK TANNA . (2021A7PS2685P)

**Student Write-up**

**PS-II Project Title:** Agentic AI System for OOS

**Short Summary of work done during PS-II :** Built agentic AI system to understand what items are oos, expected to capture 89 million USD lost revenue in Mexico Market Alone. In process of filing Patentw

**Tool used (Development tools - H/w, S/w) :** Walmart Cloud

**Objectives of the project :** Enhance Productivity of business users and capture lost revenue

**Major Learning Outcomes :** Agentic AI

**Details of Papers/patents :** NA

**Brief Description of working environment, expectations from the company :** I learned the importance of teamwork, time management, and adaptability in a professional setting. These skills will be valuable in both academic and future career pursuits.

**Academic courses relevant to the project :** All CS Courses DELs and CDCs

**PS-II STATION :** WALMART ,BENGALURU

**FACULTY NAME:** SHWETHA VITTAL

**STUDENT NAME:** ARNAV ARVIND (2021A7PS2709H)

### **Student Write-up**

**PS-II Project Title:** Artemis Ads Platform: Core Data Pipelines

**Short Summary of work done during PS-II :** As part of the AdTech Core Data team, my project focused on building and scaling data pipelines for Walmart's Data Management Platform (DMP). The goal was to adapt existing U.S.-centric ETL pipelines for international markets. These pipelines processed raw transaction and event data—enriching, validating, and transforming it into clean datasets used for reporting, analytics, and segmentation. I worked with tools like Spark, Airflow, and Hive, and collaborated closely with the U.S. team to ensure consistency across markets.

**Tool used (Development tools - H/w, S/w) :** Spark (Scala), Python, Airflow, Hive, GCS, Dataproc, Spark SQL

**Objectives of the project :** To adapt and scale Walmart's U.S.-centric data pipelines for international markets by building configurable, scalable ETL workflows for the AdTech Platform, and thus enable clean, enriched datasets for downstream advertising use cases.

**Major Learning Outcomes :** I learned how to build and manage data pipelines using tools like Spark and Airflow. I also understood how advertising systems work, how to handle large amounts of data, and how to adapt existing systems for different markets.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was collaborative, supportive, and well-structured. I was part of a data engineering team and had regular sync-ups with mentors and team members. Expectations from the company included understanding the project goals, writing clean and scalable code, communicating effectively, and being proactive in solving opportunity's. There was a strong focus on learning, and I had access to helpful documentation, code reviews, and guidance whenever needed.

**Academic courses relevant to the project :** Yes

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: HIMANSHU SINGH (2021A7PS2732G)**

**Student Write-up**

**PS-II Project Title:** Feature Store

**Short Summary of work done during PS-II :** Feature store

**Tool used (Development tools - H/w, S/w) :** Java

**Objectives of the project :** Feature Store

**Major Learning Outcomes :** Backend dev

**Details of Papers/patents :** No

**Brief Description of working environment, expectations from the company :** It strengthened my problem-solving abilities.

**Academic courses relevant to the project :** All cs courses

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: NIKHIL KRISHNA RAVURI (2021A8PS0794H)**

**Student Write-up**

**PS-II Project Title:** Backend Api Development

**Short Summary of work done during PS-II :** Built backend rest apis. Wrote tests for them like unit and integration tests.

**Tool used (Development tools - H/w, S/w) :** Java springboot

**Objectives of the project :** Build backend rest apis

**Major Learning Outcomes :** Learning backend dev

**Details of Papers/patents :** Na

**Brief Description of working environment, expectations from the company :** Relaxed and balanced and understanding team and environment

**Academic courses relevant to the project :** Dbms

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: RITVIK MITTAL . (2021A8PS2545P)**

### **Student Write-up**

**PS-II Project Title:** Walmart International Data Lake

**Short Summary of work done during PS-II :** During my PS-II at Walmart Global Tech India, I worked on enhancing the Walmart International Data Lake ecosystem. My contributions included developing SQL-based data quality checks integrated with Airflow for alerting, optimizing Google Dataproc clusters by tuning memory configurations, and implementing a weekly-triggered history load pipeline for backfilling data. I also scripted small file compaction logic for Hive tables to reduce metadata overhead and improve query efficiency. Further, I participated in migrating legacy Hive tables to Apache Hudi for supporting incremental updates, and transitioned external BigQuery tables to native format for better performance. Additionally, I developed streaming data pipelines for the Mexico market by adapting existing logic from the Canada region, enabling real-time ingestion into Hudi tables. Alongside project work, I contributed to KTLO (Keep The Lights On) tasks like ER diagram development, updating Erwin models, automating dev-prod environment sync, and cleaning up production schemas. These initiatives improved the reliability, scalability, and cost-effectiveness of Walmart's global data infrastructure.

**Tool used (Development tools - H/w, S/w) :** Languages: SQL, Python, Scala Software/Platforms: Apache Kafka, Apache Spark, Apache Airflow, Apache Hive, Apache Hudi Cloud Services: Google Cloud Platform (GCP), BigQuery, Dataproc, Cloud Composer Data Modeling: Erwin Data Modeler

**Objectives of the project :** To make extract, transform and load pipelines for mexico markets' data.

**Major Learning Outcomes :** Practical understanding of large-scale data engineering workflows Hands-on experience with industry tools like Kafka, Spark, Airflow, and GCP Skills in developing, optimizing, and automating ETL pipelines Exposure to real-time data streaming, schema ma

**Details of Papers/patents :** No research papers or patents were produced during the internship.

**Brief Description of working environment, expectations from the company :** The working environment at Walmart Global Tech India was highly collaborative, fast-paced, and innovation- driven. I was a part of the International Data Lake team, where I worked closely with experienced data engineers, product managers, and analysts. The team maintained a balance between independent ownership and team-wide code reviews, enabling a strong learning environment. The work culture encouraged initiative, continuous learning, and quality-oriented engineering. Regular stand-ups, design reviews, and mentoring sessions ensured alignment across geographies and domains. My mentors and peers provided constructive feedback and were very approachable, which significantly accelerated my learning curve.

The company expected interns to deliver production-grade code, adhere to best practices, and contribute meaningfully to ongoing projects. I was given the opportunity to work on real use cases, make optimizations that had measurable impact, and even take ownership of certain components.

Overall, the experience was intellectually rewarding and gave me a glimpse into real-world data engineering challenges at enterprise scale.

**Academic courses relevant to the project :**

Data Structures & Algorithms Database

Systems

Computer Programming Object

Oriented Programming Artificial

Intelligence Foundations of Data

Science Machine Learning

Computer Networks

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: VAIBHAV MITTAL (2021AAPS0737H)**

**Student Write-up**

**PS-II Project Title:** Seller and Offer Management API Backend System

**Short Summary of work done during PS-II :** I worked on 3 sub projects in my PS 2, first involved creating backend APIs using Java spring boot for moving the offers in the database to unpublished state and implementing the logic to filter them based on certain business rules such as the offer not in reasonable price, the inventory stock is low, etc. In the second sub project I had to implement logic to fetch aggregated data on seller as well as group level, and add a functionality to store the number of visits to a particular record for improving catalogue quality.



The third sub project involved implementing a threshold based filter to records the number of offers updated in the database in a certain time window and send alerts whenever the offer limit was not in the specified threshold, using python.

**Tool used (Development tools - H/w, S/w) :** Java, Springboot, Python

**Objectives of the project :** My project involved creating backend APIs using Java and springboot mainly aimed towards : Moving the offers to unpublished state after filtering them based on certain business rules, and fetching aggregated data both on seller as well as group level.

**Major Learning Outcomes :** My PS 2 was a great learning experience in technical aspects where I got to learn about Java, its frameworks such as spring boot, worked on projects using python, and other tech stack. I also got great exposure of working with teams as well as on an individual.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment at my PS station was growth oriented and flexible. There is a trust-based culture, with no rigid enforcement of work hours or strict schedules. The team environment was also collaborative and open. We as interns were initially allotted mentors in our respective teams, with whom we could have one-to-one interactions and mentoring sessions which made it easy to learn and contribute. The overall culture was heavily implementation and learning focused, and it did get challenging at times, but the atmosphere didn't feel high-pressure as everyone was approachable and constructive feedback was always appreciated. Overall, I found the environment a positive one, where one could focus both on technical growth as well as personal development.

**Academic courses relevant to the project :** Object Oriented Programming, Operating Systems

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: AYUSHMAN KAR (2021AAPS1983H)**

Student Write-up

**PS-II Project Title:** Seller payment settlement

**Short Summary of work done during PS-II :** In the Seller Payment Settlement project, we built automated data pipelines to process and reconcile large-scale seller transaction data. Using PySpark, Kafka, and Apache Hudi on Hadoop, we handled real-time and batch data ingestion. We generated key reports—item-wise, SKU-level, and settlement reports—to track seller earnings

and payment disbursements. Final validation and analysis were done using SQL in BigQuery, and Python scripts automated the reporting process. This system improved transparency, accuracy, and timeliness of seller payouts, reducing manual efforts and boosting operational reliability.

**Tool used (Development tools - H/w, S/w) :** Python,sql,Apache spark, Apache hudi, Apache kafka, HDFS, GCS, Bigquery

**Objectives of the project :** The objective of the Seller Payment Settlement project is to streamline and automate the financial reconciliation process for marketplace sellers by generating comprehensive reports. This includes creating item-wise sales reports, SKU template reports, and detailed settlement reports that track the earnings and payouts made to sellers. These reports ensure transparency, accuracy, and timely disbursement of payments to sellers based on their sales performance, thereby enhancing trust and operational efficiency within the marketplace ecosystem.

**Major Learning Outcomes : The Major Learning Outcomes were:**

1. End-to-End Data Pipeline Development
2. Data Lake Architecture & Management
3. Advanced SQL & BigQuery Analytics
4. Data Accuracy & Reconciliation Techniques
5. Scalable Distributed Computing
6. Real-time Data Ingestion & Pr

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was collaborative, fast-paced, and data-driven, emphasizing ownership, accountability, and opportunity-solving.

**Academic courses relevant to the project :** DBMS, OOP, OS, DSA

**PS-II STATION : WALMART ,BENGALURU**

**FACULTY NAME: SHWETHA VITTAL**

**STUDENT NAME: RAJA KUMAR (2023H1030059G)**

**Student Write-up**

**PS-II Project Title:** Marcus (GenAI Based Payment Assistant)

**Short Summary of work done during PS-II :** As part of the GenAI Chatbot (MARCUS) project at Walmart Global Tech, I contributed to the development of an AI-powered chatbot that enables

treasury teams to query financial data using natural language. My work focused on enhancing the system's intelligence and data handling capabilities. I enriched the knowledge base for Retrieval-Augmented Generation (RAG) by curating and integrating high-quality Q&A pairs into a Milvus vector database. I also designed an optimized BigQuery schema for efficient SQL query execution. In addition, I developed and integrated tools for the NL2SQL conversion agent using LangChain and the Agentic AI framework. This included building prompt templates, implementing iterative query refinement, and ensuring accurate SQL validation. I was also involved in backend integration across modules, ensuring secure data flow from the chatbot interface to BigQuery. My contributions helped streamline data access for non-technical users and supported faster, more accurate financial decision-making within the organization.

**Tool used (Development tools - H/w, S/w) :** LangChain, LangGraph, Milvus, OpenAI GPT-4o, Google BigQuery, Python (Flask, FastAPI), React, Angular, SQLParse, SQLGlue, Docker, Kubernetes, GitHub Actions

**Objectives of the project :** The project aims to simplify how treasury personnel access and analyze complex financial data by allowing them to use natural language rather than technical queries. By automating the translation of everyday questions into precise SQL commands, the system empowers users who lack deep technical expertise to retrieve critical insights quickly.

**Major Learning Outcomes :** During the course of the GenAI Chatbot (MARCUS) project at Walmart Global Tech, I gained hands-on experience in building an enterprise-grade AI system that bridges natural language processing and structured data retrieval. A key learning was understanding

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The Environment was very good. Every teammate were humble and helpful. There is a good work-life balance. There is enough time for project and enjoyment. Overall a very good experience. I will rate 8/10

**Academic courses relevant to the project :** Research Practice in GenAI

**PS-II STATION : WAYFAIR GLOBAL TECHNOLOGY PVT. LTD-MARKETING, DATA AND ML PLATFORM ENGINEERING TEAM ,BENGALURU**

**FACULTY NAME: PRADHEEP KUMAR K .**

**STUDENT NAME: HARSHIT AGARWAL (2021A7PS0247H)**

**Student Write-up**

**PS-II Project Title: AI Kafka Automated Utility**

**Short Summary of work done during PS-II :** The project involves making a utility/package for the company which can extract kafka details, this is the first phase of the project. Second phase is after extracting the details and loading the info on the GBQ, analyzing the data patterns, and then making an antifactory of it and then wrapping it around the MCP server so that it can be used directly by the user through co-pilot.

**Tool used (Development tools - H/w, S/w) :** Docker, LLM, MCP server

**Objectives of the project :** The project involves making a utility/package for the company which can extract kafka details, this is the first phase of the project. Second phase is after extracting the details and loading the info on the GBQ, analyzing the data patterns, and then making an antifactory of it and then wrapping it around the MCP server so that it can be used directly by the user through co-pilot.

**Major Learning Outcomes :** Learned Latest Technology in the field of Gen Ai.

**Details of Papers/patents :** N/A

**Brief Description of working environment, expectations from the company :** I gained hands-on exposure to real-world work situations, which helped me bridge the gap between theoretical knowledge and practical application. It also strengthened my problem-solving abilities.

**Academic courses relevant to the project :** Data Science Minor (ML, Gen Ai, Data Mining)

**PS-II STATION : WCB ROBOTICS INDIA PVT LTD - MECHANICAL ,HYDERABAD**

**FACULTY NAME: RAKESHA CHANDRA DASH .**

**STUDENT NAME: RAMANUJ PRALHAD SOMANI (2021A4PS0311G)**

**Student Write-up****PS-II Project Title: Mechanical Design and Optimization**

**Short Summary of work done during PS-II :** WCB Robotics being a startup is has a challenging work environment. I worked on various projects here which can be broadly classified under two headings. 1) Numerical optimization – Under which I had to write a python script which would generate an optimized gear profile for worm-wheels used in worm drives. 2) Mechanical Design – Under this domain I worked on two major projects which involved use of commercial CAD, CAM and FEA software. a) Design of a component which was to be CNC machined using DFM guidelines for the same while also achieving weight and strength benchmarks. b) Design of Snap Fits of non-permanent kind which involved extensive batch Finite element analysis and

prototyping using FDM                      c)FEA analysis of an impeller in which I had to find the location and value of maximum stress and then suggest ways on how to reduce them because of creep deformation. I also helped in various small priority and less technical task but they gave an good sense on the practical aspects of the design.

**Tool used (Development tools - H/w, S/w) :** FDM printers, Slicers, CAD , CAM and FEA suites

**Objectives of the project :** 1) Design of Worm wheel profile using python. 2) Design of Mechanical Components

**Major Learning Outcomes :** Application of design principles to real life opportunity's ,opportunity solving approach and production design.

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** As you expect in any start-up busy schedules and steep-learning curve.

**Academic courses relevant to the project :** MOS, AMOS, Advanced M.P, CAD Fundamentals

**PS-II STATION : WCB ROBOTICS INDIA PVT. LTD. - ELECTRONICS ,HYDERABAD**

**FACULTY NAME: SANJAY VIDHYADHARAN .**

**STUDENT NAME: ADARSH GOPALAKRISHNAN (2021A8PS1755G)**

### **Student Write-up**

**PS-II Project Title:** Electronic Design

**Short Summary of work done during PS-II :** My role was to support the company in product development. I was tasked to design Printed Circuit Boards and write firmware to interface with sensors and motors. I was also given tasks to perform testing for the products critical systems, building test setup for testing in certain environments and automating the assembly process.

**Tool used (Development tools - H/w, S/w) :** Microcontroller development boards, Kicad, Code Composer Studio, Arduino IDE

**Objectives of the project :** To design PCB for various applications, write firmware to interface sensors and motors and design sensors

**Major Learning Outcomes :** Electronic design for real-world applications, opportunity solving and analysis

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The company has a healthy work environment. Everyone works on their own tasks and there is no hesitation in asking others for help. All departments consistently collaborate with each other. The company expects you adapt to their process. They don't mind lack of knowledge as long as you consistently gain experience.

**Academic courses relevant to the project :** Electrical sciences, Digital Design, Signals and Systems, Control Systems, Analog Electronics, Power Electronics, Microprocessor and Interfacing

2

**PS-II STATION : WELLS FARGO ,BENGALURU**

**FACULTY NAME: NIRANJAN SWAIN .**

**STUDENT NAME: ASHUTOSH JOSHI (2023H1540838P)**

### **Student Write-up**

**Short Summary of work done during PS-II :** The majority of the work includes regular BAU, some automation of excel sheets using advance excel skills like B+VBA, Macros. Initially power BI was there where we used to create dashboard.

**Tool used (Development tools - H/w, S/w) :** EXCEL, Power BI, PPT

**Objectives of the project :** automation

**Major Learning Outcomes :** I developed a deeper understanding of workplace dynamics and learned how to manage multiple tasks efficiently while meeting deadlines.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The environment emphasized discipline and structure

**Academic courses relevant to the project :** excel,data vizualisation

**PS-II STATION : WILP - ADAS , ARTIFICIAL & COMPUTATION, HYDERABAD ,HYDERABAD**

**FACULTY NAME: RAJIV RANJAN GUPTA .**

**STUDENT NAME: BURUGU VENKATA SAKETHA REDDY (2021A4PS1986H)**

Student Write-up

**PS-II Project Title:** Localization, SLAM and Path Planning Simulation of an IMU-Lidar Based Robot

**Short Summary of work done during PS-II :** During the PS-II internship, I developed and simulated a complete autonomous navigation system for a robot using ROS2 and Gazebo. Starting from dual-boot setup and environment configuration, I modeled a differential drive robot using URDF and visualized it in RViz. I simulated key sensors like IMU and 2D LiDAR, then constructed maps using probabilistic occupancy grids from laser data. For localization, I implemented the Adaptive Monte Carlo Localization (AMCL) algorithm to accurately determine the robot's global position despite noisy initial estimates. Further, I built and optimized a Graph SLAM system that mapped unknown environments by constructing pose graphs with loop closure and data association. To enable navigation, I implemented Dijkstra and A\* path planning algorithms that calculated optimal paths to goal posts in complex simulated worlds. Additionally, I integrated dynamic safety mechanisms using a Speed and Separation Monitoring Node. All modules were modularized through launch files and integrated with the Nav2 stack, offering a scalable and testable simulation framework. This internship significantly enhanced my knowledge in SLAM, localization, and autonomous navigation systems.

**Tool used (Development tools - H/w, S/w) :** Software Tools: ROS2 (Humble, Jazzy), Gazebo, RViz2, VS Code, Ubuntu 24.04, Python, C++, URDF, YAML Simulation Libraries & Frameworks: Nav2, SLAM Toolbox, AMCL, Twist Mux, DDS, sensors, nav\_msgs Demanding ware Simulated: IMU, GPS, 2D LiDAR (RP Lidar A1),

**Objectives of the project :** The objective of this project was to design, simulate, and validate an autonomous mobile robot system capable of Simultaneous Localization and Mapping (SLAM), global localization, and efficient path planning using sensor fusion from IMU, LiDAR, and GPS. The aim was to explore unknown environments, generate accurate occupancy grid maps, localize the robot within them using probabilistic models, and implement classical algorithms for navigation.

**Major Learning Outcomes :** Hands-on expertise with ROS2 architecture, Gazebo simulation, and URDF-based robot modeling.

Implementation of Monte Carlo Localization and Graph SLAM for solving localization and mapping in unknown environments.

Development and analysis of classical pa

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment at the WILP ADAS Lab, BITS Pilani - Hyderabad Campus, was intellectually

stimulating and collaborative. Under the mentorship of Prof. Rajiv Ranjan Gupta, I had the freedom to explore and experiment with various SLAM and navigation techniques, yet was guided thoughtfully to maintain technical rigor and clarity in execution. The lab maintained a strong emphasis on self-learning, encouraging interns to independently configure development tools and troubleshoot aspects—such as dual-booting, source builds, and middleware mismatches. I was expected to take ownership of each module—from sensor simulation to final navigation—while adhering to good documentation and reproducibility practices. Weekly evaluations helped reinforce discipline and continuous improvement. The culture was open and supportive, fostering technical discussions, critical opportunity-solving, and real-world application insights. My expectation was to gain an in-depth understanding of autonomous robotics systems, which was fully met and exceeded through opportunities to simulate complete pipelines using ROS2, implement classical algorithms, and dive deep into probabilistic mapping and localization frameworks. Overall, this internship provided a strong blend of theory and application, preparing me to contribute effectively to real-world autonomous robotics projects in the future.

**Academic courses relevant to the project :** Artificial Intelligence for Robotics, Robotics, Computer Aided Design

**PS-II STATION : WILP - ADAS , ARTIFICIAL & COMPUTATION, HYDERABAD ,HYDERABAD**

**FACULTY NAME: RAJIV RANJAN GUPTA .**

**STUDENT NAME: ADVAIT PAWAN DESHMUKH (2021A4PS2825G)**

### **Student Write-up**

**PS-II Project Title: ADAS**

**Short Summary of work done during PS-II :** Worked on setting up penetration testing laboratory in collaboration with Bosch

**Tool used (Development tools - H/w, S/w) :** Vector tools, stm32, Infineon, aurix development studio, stm32 cubemx ide

**Objectives of the project :** Setting up a penetration testing center of excellence in collaboration with BOSCH

**Major Learning Outcomes :** Embedded programming, Automotive communication protocols, embedded communication protocols

**Details of Papers/patents : NA**



**Brief Description of working environment, expectations from the company :** Workload is manageable, there was a lot of free time and resources to work on personal projects.

**Academic courses relevant to the project :** Yes

**PS-II STATION : WILP - ADDITIVE MANUFACTURING, HYDERABAD ,HYDERABAD**

**FACULTY NAME: PANCHAGNULA JAYAPRAKASH SHARMA .**

**STUDENT NAME: PRAKHAR SRIVASTAVA . (2019ABPS0624P)**

### **Student Write-up**

**PS-II Project Title:** DMA Of peek material

**Short Summary of work done during PS-II :** During my PS-II, I focused on the fabrication and testing of high-performance PEEK (Polyether Ether Ketone) specimens using Fused Deposition Modeling (FDM) technology. The work involved slicing and printing rectangular ( $60 \times 13 \times 3$  mm) and dog bone-shaped samples using the Creatbot PEEK 3D printer, optimized via Creatware software. A key challenge addressed was warping and interlayer delamination due to the high glass transition and melting temperatures of PEEK ( $\sim 143^\circ\text{C}$  and  $\sim 343^\circ\text{C}$  respectively). These were mitigated by fine-tuning critical print parameters such as nozzle temperature ( $400\text{--}420^\circ\text{C}$ ), bed temperature ( $120\text{--}135^\circ\text{C}$ ), and chamber temperature ( $60\text{--}70^\circ\text{C}$ ), along with using PrintBond Universal Adhesive on PEI surfaces. Approximately 50 rectangular samples and 120 dog bone specimens were printed with varied infill orientations ( $0^\circ$ ,  $90^\circ$ ,  $\pm 45^\circ$ , and  $0/90^\circ$  hybrid) to study anisotropic behavior. The printed parts were then subjected to mechanical testing, including tensile tests and Dynamic Mechanical Analysis (DMA), to evaluate their strength, modulus, and thermal behavior. The DMA testing also helped establish prediction equations correlating temperature and frequency effects on viscoelastic performance. This hands-on experience enhanced my understanding of additive manufacturing, thermal-material interaction, and mechanical characterization, while also preparing me to handle real-world aspects such as printer calibration, failure handling, and data analysis in polymer engineering.

**Tool used (Development tools - H/w, S/w) :** Used Creatbot PEEK FDM 3D printer (H/w) and Creatware slicing software (S/w) for sample fabrication and parameter optimization.

**Objectives of the project :** To fabricate rectangular and dog bone-shaped samples of PEEK material using the Creatbot PEEK FDM 3D printer, ensuring dimensional accuracy and structural integrity suitable for mechanical and dynamic mechanical testing.

**Major Learning Outcomes :** Gained practical expertise in high-temperature FDM printing of PEEK and its mechanical characterization through DMA and tensile testing.

**Details of Papers/patents :** Reviewed multiple peer-reviewed research papers focusing on FDM printing of PEEK and its dynamic mechanical analysis. Key references include studies on parameter optimization, thermal behavior, mechanical strength, and prediction models using DMA.

**Brief Description of working environment, expectations from the company :**

The in-charge maintained high expectations, which often pushed me beyond my defined project scope and helped me develop multitasking and time management skills. In addition to my core project work, I was entrusted with diverse responsibilities, including logistical coordination and preparing additional presentations.. The environment encouraged structure. while technically valuable, also highlighted the importance of structured mentorship, safety awareness, and realistic expectations in professional settings.

**Academic courses relevant to the project :** me f110 workshop practice, mf f216 materials science and engg, mf f314 design of machine elements, mf f222 casting forming and welding

**PS-II STATION : WILP - COMMUNICATION LAB, HYDERABAD ,HYDERABAD**

**FACULTY NAME: SUPARNA CHAKRABORTY .**

**STUDENT NAME: AYUSH SRIVASTAVA . (2020B5A20959P)**

**Student Write-up**

**PS-II Project Title:** Precision Irrigation

**Short Summary of work done during PS-II :** During PS-II, I worked on three projects across IoT, energy systems, and optics. I built a smart irrigation system using ESP32 sensors, Raspberry Pi, and AI models to optimize water usage in agriculture. I designed a Battery Management System (BMS) in MATLAB to manage SOC-based switching and load balancing in EV batteries. Additionally, I created an Arduino-based setup to detect the TIR angle using a stepper motor and laser, mounted on a 3D-printed base. These projects enhanced my skills in embedded systems, sensor networks, MATLAB simulation, and real-time data processing.

**Tool used (Development tools - H/w, S/w) :** ESP32, Raspberry Pi, Arduino Uno, TB6600, NEMA Stepper Motor, Laser Module, DC-DC Converters, Lithium-ion Batteries (3S2P)

**Objectives of the project :** Develop a smart irrigation system using IoT sensors and AI to monitor soil conditions and optimize water usage in agriculture. Design a dynamic Battery Management System (BMS) for EVs that ensures safe, efficient energy distribution and switching based on State of Charge. Build a precise Arduino-controlled setup to detect the Total Internal Reflection (TIR) angle using stepper motor control and laser alignment.

**Major Learning Outcomes :** Gained hands-on experience in embedded systems, IoT, and AI by developing smart solutions for agriculture, battery management, and optical measurement. Learned to integrate demanding ware with data-driven models for real-time control, energy efficiency, and pre

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was normal.

**Academic courses relevant to the project :** Yes

**PS-II STATION : WILP - COMMUNICATION LAB, HYDERABAD ,HYDERABAD**

**FACULTY NAME:** SUPARNA CHAKRABORTY .

**STUDENT NAME:** SOHAM ANAND KULKARNI (2021A8PS2756G)

### **Student Write-up**

**PS-II Project Title:** Precision Smart Agriculture

**Short Summary of work done during PS-II :** I also gained experience in writing and organizing academic papers. The project began with simulating random deployment of sensors in MATLAB, calculating energy consumption, and determining sensing areas. A receiver node was programmed to make automated irrigation decisions based on threshold conditions. Log-positive and professional shadowing was incorporated to simulate environmental obstructions realistically. Later, actual sensors and Raspberry Pi were used for a physical setup.

**Tool used (Development tools - H/w, S/w) :** MATLAB & Simulink , Arduino IDE , Raspberry Pi LoRa Modules Solar Panel & Energy Harvesting Circuit MS Word/LaTeX for documentation , Python (for data processing scripts)

**Objectives of the project :** The primary objective of this project is to design and implement a smart precision agriculture system using Wireless Sensor Networks (WSNs) and energy harvesting techniques to automate irrigation. The project aims to optimize water usage, enhance crop monitoring, and promote sustainable farming through sensor-based environmental data analysis.

**Major Learning Outcomes :** Throughout the project, I learned how to integrate demandingware and software systems for real-world applications. **Major Learning Outcomes** included developing proficiency in MATLAB and Simulink for simulation, understanding the working of rechargeable battery

**Details of Papers/patents :** As part of this work, I prepared a detailed research paper titled “Energy-Efficient Smart Irrigation using Wireless Sensor Networks and Solar Harvesting”, which is being refined for submission to reputed journals like IEEE or Elsevier. Tools and platforms

**Brief Description of working environment, expectations from the company :** The internship was conducted in a hybrid model under academic supervision with technical guidance from a faculty mentor. I worked both remotely and at a lab setup, simulating real-world agricultural conditions. Regular progress reviews were held virtually, ensuring clarity and direction throughout the project. The working environment fostered independent research, creativity, and technical experimentation. I had the flexibility to explore various modules—sensor integration, energy harvesting, and simulation—encouraging holistic development. The environment was academically rigorous yet nurturing, promoting peer collaboration, literature reviews, and hands-on circuit implementation. The access to documentation tools, simulation platforms, and mentorship played a critical role in streamlining the project. Feedback from mentors ensured iterative improvements and learning throughout the process. I expected the internship to enhance my technical skill set, provide exposure to real-world agricultural challenges, and allow practical implementation of embedded systems, sensor networks, and IoT solutions. The aim was to bridge theoretical knowledge with field-level applications, especially in resource-constrained rural settings. I also sought to strengthen my understanding of sustainability in engineering and gain confidence in academic research and publishing.

**Academic courses relevant to the project :** Wireless Communication & Sensor Networks  
Embedded Systems, ADVD , MuE , SAS , MuP

**PS-II STATION : WILP - CONTROL SYSTEMS,IC ENGINES, RSM,HYDERABAD ,HYDERABAD**

**FACULTY NAME: RAGHURAMAN S .**

**STUDENT NAME: PAKKIRU GUNA SHEKHAR REDDY (2020B3A41510G)**

### **Student Write-up**

**PS-II Project Title:** Converting lab experiment codes from c to simulink

**Short Summary of work done during PS-II :** Basically, it was just converting all the experiments in C code to Simulink models. I have done three experiments, DC motor position, control, DC motor speed control, water, bath, temperature control, all three of these use arduino. Another project was open loop PMSM motor control using Texas instruments c2000 board and inverter

**Tool used (Development tools - H/w, S/w) :** Arduino io, simulink, matlab, arduino uno, TI F2837D, DRV 8305, PMSM, DC motor with encoder

**Objectives of the project :** To convert the preexisting c code to Simulink models in order to help wilp students and faculty in better understanding of the processes

**Major Learning Outcomes :** Simulink, TI c2000 blockset, control systems, PID control, 3 phase signal

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Very good learning and environment if you're interested in control systems or auto Tronics area, the lab instructors were pretty relaxed and balanced and faculty. Also faculty helps you to understand new topics, even if you're not familiar with them. As I was a mechanical student, I was given enough time to learn control systems and familiarize myself with new topics

**Academic courses relevant to the project :** Control system, power electronics

**PS-II STATION : WILP - ELECTRIC AND HYBRID LAB ,HYDERABAD**

**FACULTY NAME:** MADHURI BAYYA .

**STUDENT NAME:** MANNEPALLI VYSHNAVI SWETHA (2019AAPS0284G)

**Student Write-up**

**PS-II Project Title:** Electric hybrid vehicle lab

**Short Summary of work done during PS-II :** I learned a lot of new content.

**Tool used (Development tools - H/w, S/w) :** Matlab, Lt spice, hybrid vehicle trainer software

**Objectives of the project :** Hybrid vehicle

**Major Learning Outcomes :** Hybrid vehicle trainer

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** Overall it was good experience.

**Academic courses relevant to the project :** Power electronics.

**PS-II STATION : WILP - ELECTRIC AND HYBRID LAB ,HYDERABAD**

**FACULTY NAME: MADHURI BAYYA .**

**STUDENT NAME: SOMNATH (2023H1240062H)**

### **Student Write-up**

**PS-II Project Title:** State of Charge Estimation for Lithium-ion Batteries using Deep Learning and Kalman Filtering Techniques.

**Short Summary of work done during PS-II :** During PS-II, I worked on a comparative study of SoC estimation techniques for lithium-ion batteries. Initially, I developed and trained Fully Connected Neural Networks (FCN), Long Short-Term Memory (LSTM), and Convolutional Neural Networks (CNN) using Python to predict SoC based on battery voltage, current, and temperature data. These models were evaluated using time-domain and RMSE metrics. Parallely, I implemented Kalman and Extended Kalman Filters based on a 1-RC equivalent circuit model of the battery using MATLAB and Simulink. The 1-RC model was identified and tuned for real-world battery parameters. I validated both model-based and data-driven results against ground truth SoC values to understand estimation accuracy under different conditions. The project gave me valuable insights into battery modeling, filtering theory, and time-series deep learning, while also enhancing my practical skills in MATLAB/Simulink and Python.

**Tool used (Development tools - H/w, S/w) :** MATLAB, Simulink, Python (TensorFlow/Keras, NumPy, pandas)

**Objectives of the project :** To estimate the SoC of lithium-ion batteries accurately using data- driven (FCN, LSTM, CNN) and model-based (Kalman Filter, EKF) approaches. To compare the accuracy, robustness, and performance of machine learning and traditional filtering methods. To develop and simulate 1-RC battery equivalent models in MATLAB/Simulink for filter-based estimation.

**Major Learning Outcomes :** Developed deep learning models (FCN, LSTM, CNN) for time-series SoC estimation, Implemented and tuned Kalman and Extended Kalman Filters for 1-RC battery models in MATLAB

Learned how to simulate battery dynamics using Simulink and integrate ML and filter

### **Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The working environment was academically oriented and research-driven, with access to simulation tools and technical mentorship. I worked under the guidance of project mentors who provided timely feedback on models and results. The expectations were to explore different estimation techniques, analyze their pros and cons, and document the performance thoroughly. The company expected thorough comparative analysis, precision in simulation modeling, and clarity

in result interpretation. The exposure to real-time challenges in SoC estimation helped me understand the criticality of battery management in EV systems.

**Academic courses relevant to the project :**

Digital Signal Processing  
Control Systems Machine  
Learning MATLAB  
Programming

**PS-II STATION : WILP - IOT, HYDERABAD ,HYDERABAD**

**FACULTY NAME: PRAKRUTHI HAREESH .**

**STUDENT NAME: KESANA.VEERA SIVA (2023H1060118G)**

Student Write-up

**PS-II Project Title:** Optimizing Thermal Management of LED Lights through Additive Manufacturing and Generative Design.

**Short Summary of work done during PS-II :** During the PS-II internship, significant work was undertaken in thermal design optimization for LED heat sinks. This involved setting up and running thermal simulations using Diabatix Coldstream, meticulously defining boundary conditions, material properties, and heat sources. A key aspect was the exploration of design variations, including design space, minimum relative volume factors, and wind direction, to achieve optimal thermal performance through generative design and simulation-based optimization. The practical application of these theoretical concepts was demonstrated by creating and modifying complex 3D models in Fusion 360 and Autodesk Inventor. Beyond the technical execution, the internship also emphasized iterative design refinements and the validation of simulation results, involving thorough documentation in detailed technical reports and presentations of findings to senior engineers, with continuous incorporation of feedback. This comprehensive approach allowed for a deep investigation into how factors like airflow direction, lattice structures, and material selection critically impact LED heat sink performance.

**Tool used (Development tools - H/w, S/w) :** Diabatix Coldstream

**Objectives of the project :** Thermal simulation and design optimization of an LED light using Diabatix Coldstream and Fusion 360 to enhance heat dissipation and improve cooling efficiency through generative design and additive manufacturing.

**Major Learning Outcomes :** Thermal Simulation & Optimization: Expertise in Diabatix Coldstream for simulations and generative design for heat sink efficiency.

CAD Modeling & Design: Proficient in 3D modeling using Fusion 360 and Autodesk Inventor, with strong iterative design.

**Details of Papers/patents : Nothing**

**Brief Description of working environment, expectations from the company :** The working environment at WIPRO 3D was dynamic, technology-driven, and highly collaborative. As a leader in additive manufacturing and 3D printing solutions, WIPRO 3D emphasized innovation and excellence in every aspect of its operations. The team fostered a culture of continuous learning and encouraged open communication, providing ample opportunities to discuss ideas, share insights, and receive constructive feedback.

Expectations from the company were centered on delivering high-quality work with a strong focus on accuracy and innovation. Interns and team members were encouraged to quickly adapt to new tools and technologies, stay proactive in addressing challenges, and maintain meticulous attention to detail. Timely completion of tasks, adherence to best practices in 3D printing and design, and a commitment to professional ethics were crucial components of the internship experience.

WIPRO 3D also valued teamwork and encouraged interns to engage actively with experienced professionals, participate in knowledge-sharing sessions, and contribute to real-world opportunity-solving. This nurturing environment not only enhanced technical skills but also fostered a deeper understanding of the industrial applications of 3D printing.

**Academic courses relevant to the project :** Computational Fluid Dynamics

**PS-II STATION : WILP - IOT, HYDERABAD ,HYDERABAD**

**FACULTY NAME: PRAKRUTHI HAREESH .**

**STUDENT NAME: PRINCE KUMAR (2023H1400109G)**

Student Write-up

**PS-II Project Title: TOOL LIFE PREDICTION IN CNC MACHINE IN FANUC CNC MACHINE**

**Short Summary of work done during PS-II :** During my PS-II at ZF Commercial Vehicle Control Systems, Chennai, I worked on a project titled “Tool Life Prediction in FANUC CNC Machines.” The objective was to predict tool wear and optimize tool replacement schedules by analyzing real-time spindle load data. I implemented a data acquisition system using the FANUC FOCAS API to monitor live parameters such as spindle load, current, and tool life. The collected data was transmitted through a gateway to cloud and local platforms for processing and visualization. Using Python, I developed scripts for data cleaning, merging, segmentation, and auto-incrementation of tool life, addressing operator intervention that manipulated tool life values. A threshold-based approach was adopted to define tool wear: tools were flagged for replacement



if spindle load exceeded 100% continuously for more than 5 seconds. This real-time monitoring helped detect tool wear early, reducing the chances of tool breakage and machine damage. Additionally, I calculated production losses due to tool failure—considering downtime, scrap, rework, and lost production—to highlight the economic impact. Finally, I visualized spindle load trends and tool life progression using matplotlib to analyze tool performance. These insights guided tool-specific optimization, showing that some tools were underutilized while others were overused. This project provided practical exposure to CNC machine analytics, Python automation, and predictive maintenance, laying a strong foundation for implementing intelligent manufacturing solutions.

**Tool used (Development tools - H/w, S/w) :** Demanding ware Tools FANUC CNC Machine Gateway Device Software Tools FOCAS API Python Pandas, NumPy Matplotlib Microsoft Azure (DMP) Excel

**Objectives of the project :** Enhance CNC Machine Efficiency

**Major Learning Outcomes :** Practical Understanding of CNC Operations, Real-Time Data Acquisition Using FOCAS API, Python-Based Data Processing and Automation, Data Visualization and Decision Support, Integration of Cloud and Edge Technologies

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** During my PS-II at ZF Commercial Vehicle Control Systems, Chennai, I experienced a highly professional and collaborative working environment. The company maintains a structured and process-oriented setup, aligning well with industry best practices. I was assigned to the CNC machine analytics division, where I had access to real-time machine data and modern infrastructure to carry out my project on tool life prediction.

The team members, including my mentor and other staff, were highly supportive and open to discussions. I was encouraged to take ownership of the project while also receiving timely guidance and feedback, which helped me align my academic learning with practical industrial applications. The work culture was driven by innovation, continuous improvement, and safety, ensuring a productive and learning-focused atmosphere.

My expectations from the company were to gain hands-on exposure to real-world CNC machine operations, understand the application of data acquisition and predictive analytics in manufacturing, and work with industrial protocols like FOCAS API. These expectations were fully met as I was provided with opportunities to interact with machines directly, write Python-based automation scripts, analyze live data, and visualize the tool wear trends.

Additionally, I expected a platform where I could contribute meaningfully and learn to work independently in a real-time industrial setup. The project helped me enhance my technical, analytical, and opportunity-solving skills. Overall, ZF CVCS provided a rich and motivating environment that greatly contributed to my growth as an embedded systems and industrial analytics engineer.

**Academic courses relevant to the project :** Embedded Systems Design, Programming with Python, Machine Learning, IOT

**PS-II STATION : WISSEN INFOTECH ,BENGALURU**

**FACULTY NAME: RAJA VADHANA PRABHAKAR .**

**STUDENT NAME: AMAN MALLIK (2021A7PS1807H)**

Student Write-up

**PS-II Project Title:** Wise Forecast

**Short Summary of work done during PS-II :** During the entire PS my team conducted research into RAG systems, Time series analysis and forecasting, and agentic workflows. We developed a chatbot application to perform the necessary tasks. We also developed an document which documents which models are preferred when certain data is used.

**Tool used (Development tools - H/w, S/w) :** S/w - Databricks, Lang Graph, Azure Spark

**Objectives of the project :** Create a simple chatbot like application to quickly and accurately solve time series forecasting opportunities of a client

**Major Learning Outcomes :** App Development; Agentic systems; Databricks as a platform

**Details of Papers/patents :** No papers, but an industry confidential document was developed for application

**Brief Description of working environment, expectations from the company :** My workplace thrives on collaboration and open communication, where you'll find a refreshingly flat hierarchy. Everyone's encouraged to share ideas, and there's a strong sense of teamwork – we often tackle projects together, bringing our diverse skills to the table. We're pretty big on technology, constantly leveraging the latest tools to boost our efficiency and stay connected. Plus, there's a good amount of flexibility, which really helps maintain a healthy work-life balance. We're also always learning, with plenty of opportunities to grow our skills.

**Academic courses relevant to the project :** Artificial Intelligence; Cloud Computing

**PS-II STATION : WISSEN INFOTECH ,BENGALURU**

**FACULTY NAME: RAJA VADHANA PRABHAKAR .**

**STUDENT NAME: ANKIT KUMAR (2023H1030076P)**

Student Write-up

**PS-II Project Title: Wise Hire**

**Short Summary of work done during PS-II :** In the Wise Hire project, I developed a smart Applicant Tracking System to analyze and rank thousands of resumes against job descriptions using Lang graph, LLM-based techniques. Key contributions included: Resume–JD Matching Engine: Built a matching pipeline using embeddings, cosine similarity, and prompt based scoring to evaluate candidate-job alignment. Skill Score Computation: Implemented multiple skill scoring methods — vector cosine similarity, prompt-based scoring with LLMs. Education score out of 10 Work Experience score out of 10 Custom Skill Extraction: Enabled both LLM-suggested and user- defined skill inputs, with level tagging and validation using a skills database. Modular Backend Pipeline: Created reusable modules for resume parsing, job-role skill mapping, and description enrichment using PostgreSQL. LLM + Lang Graph Integration: Designed Lang Graph workflows to autonomously select tools and branches (e.g., tech vs non-tech) for fine-grained resume analysis. Interactive Frontend (stream lit): Built a chatbot-style interface for skill selection, confirmation, and personalized feedback before proceeding to analysis.

**Tool used (Development tools - H/w, S/w) :** Lang chain, Lang Graph, PostgreSQL, Streamlet app for UI

**Objectives of the project :** Build a application for Resume ATS using LLM

**Major Learning Outcomes :** Implementation of LLM model in real time Application

Lang chain

Lang Graph

Use case of LLM model

Word embedding, Vector store

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** Wissen Infotech (also known as Wissen Technology), a global technology consulting firm, fosters a work environment that is dynamic and challenging, with employees often engaged in complex projects utilizing cutting-edge technologies like AI/ML and Big Data. Operating on a client-centric consultancy model, the immediate work setting can vary as many employees are deployed to client sites, emphasizing the high value placed on client feedback. The company places a significant emphasis on learning and growth, providing resources such as Pluralsight subscriptions, training, certifications, mentorship programs, coding competitions, and opportunities for experimentation. It promotes a collaborative and team-oriented culture with a

focus on knowledge sharing, and aims to be supportive and inclusive, offering an internal play area for breaks. While work-life balance is generally supported, the nature of consulting can lead to demanding periods. Advancement is based on merit-based progression, considering performance and client impact. Wissen Infotech expects its employees to demonstrate strong technical proficiency in relevant skills, take ownership and accountability for their work, and possess excellent opportunity- solving and initiative. A continuous learning and curious mindset is essential due to the evolving tech landscape. Employees must have strong communication and interpersonal skills for effective collaboration and client management, show adaptability and agility across diverse projects, and maintain a client-centric mindset by striving for customer satisfaction. Finally, professionalism and integrity, along with a commitment to teamwork and collaboration, are core expectations. In essence, Wissen Infotech seeks motivated, skilled, and adaptable professionals who are eager to learn, take ownership, and deliver high-quality solutions in a dynamic, client-focused environment.

**Academic courses relevant to the project :** LLM Engineering: Design, Development, and Evaluation

**PS-II STATION : WISSEN INFOTECH ,BENGALURU**

**FACULTY NAME: RAJA VADHANA PRABHAKAR .**

**STUDENT NAME: SHREYANK DUBEY (2023H1030081H)**

### **Student Write-up**

**PS-II Project Title:** Code Migration,RFP,OPEN-R1

**Short Summary of work done during PS-II :** Learning of AI related tool plus research on latest development in AI field

**Tool used (Development tools - H/w, S/w) :** Python, Lang graph ,Lang chain

**Objectives of the project :** Migration code and LLM optimization

**Major Learning Outcomes :** Learning of AI related tool plus research on latest development in AI field

**Details of Papers/patents :** deep seek R1 ,Open R1

**Brief Description of working environment, expectations from the company :** Good working environment

**Academic courses relevant to the project : AI ,GenAI**

**PS-II STATION : WISSEN INFOTECH ,BENGALURU**

**FACULTY NAME: RAJA VADHANA PRABHAKAR .**

**STUDENT NAME: DESAI NIHAR DHIRENDRAKUMAR (2023H1030093P)**

**Student Write-up**

**PS-II Project Title:** Wesco Data Enrichment

**Short Summary of work done during PS-II :** Made one product which is useful for data enrichment.

**Tool used (Development tools - H/w, S/w) :** Lang chain , Lang graph, Lightning AI, streamlet

**Objectives of the project :** To automate the filling of spec sheet of different manufacturer with their product attributes.

**Major Learning Outcomes :** Teamwork and How agentic system works.

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** The work environment at our company is friendly, professional and focused on teamwork.

**Academic courses relevant to the project :** GenAI, ML , AI , DBMS

**PS-II STATION : YUGABYTE, BENGALURU ,BENGALURU**

**FACULTY NAME: RAJA VADHANA PRABHAKAR .**

**STUDENT NAME: JASON AARON GOVEAS (2021A7PS0237H)**

**Student Write-up**

**PS-II Project Title:** Yugabyte Aeon Offsite Backup/Restore and Enhancements

**Short Summary of work done during PS-II :** Extended the backup/restore functionality by adding support for automated backup replication from company cloud buckets to customer cloud buckets. With this, customers can set custom retention policies, integrate backups with existing systems, and ensure data security and compliance with industry standards. This also reduce the

risk of churn by making the product compliant and more attractive to new and existing customers. Also added an Internal API to allow support staff to run database queries directly from the admin platform, which improved ticket resolution time as they could directly deploy fixes whenever any customers ran into aspects. Also fixed other minor bugs in the backend.

**Tool used (Development tools - H/w, S/w) :** Java, PostgreSQL, Github, Linux

**Objectives of the project :** The Offsite Backups project focuses on developing an offsite backup solution that automates the replication of data to customer storage buckets.

**Major Learning Outcomes :** Backend Web Development, Cloud Databases and Distributed Database Systems

**Details of Papers/patents : NA**

**Brief Description of working environment, expectations from the company :** Good working environment, my team has been very helpful whenever I have faced any aspects. The projects handed to interns are usually interesting and basic enough for students to complete in the duration of their internship, and they are also used by the company in their product offerings. Work can become hectic sometimes, since engineering teams are distributed in India and the US, and matching timings can be tough. Work life balance is very good, you can work remotely and work timings are respected.

**Academic courses relevant to the project :** OOPS, DBMS

**PS-II STATION : YUGABYTE, BENGALURU ,BENGALURU**

**FACULTY NAME: RAJA VADHANA PRABHAKAR .**

**STUDENT NAME: AARYAN CHAUHAN (2021A7PS2595G)**

**Student Write-up**

**PS-II Project Title:** Attach/Detach of universes

**Short Summary of work done during PS-II :** Development of attach/detach feature of universes between application instances - Enhanced APIs for documentation, fixed bugs and added minor improvements, now adding CLI support for the APIs.

**Tool used (Development tools - H/w, S/w) :** Java Play, goLang, OpenAPI + Swagger

**Objectives of the project :** The user should seamlessly and with zero downtime be able to transfer metadata of universe (cluster) from one app instance to another.

**Major Learning Outcomes** : Learnt about DB cluster architecture, application development in Java Play, CLI support in golang, API development with swagger and OpenAPI

**Details of Papers/patents** : -None

**Brief Description of working environment, expectations from the company** : Working environment is nice - seniors are supportive and help in doubts. Interns are expected to be proactive towards work, but not much industrial knowledge is expected at the start.

**Academic courses relevant to the project** : OOPS, DBMS, SDPD

**PS-II STATION : YUGABYTE, BENGALURU**

**FACULTY NAME: RAJA VADHANA PRABHAKAR .**

**STUDENT NAME: AASHIR TYAGI (2021A7PS3015H)**

**Student Write-up**

**PS-II Project Title:** Improving Observability in Logical Replication

**Short Summary of work done during PS-II** : Worked on implementing various observability views to make Yugabyte on par with PG15 in terms of observability. Apart from this also worked on adding additional views which will help the support staff in debugging any cdc related aspects.

**Tool used (Development tools - H/w, S/w)** : C/C++, Java, LLDB

**Objectives of the project** : The project is aimed at improving the overall observability of the logical replication in Yugabyte DB and making it on par with the observability in PG15.

**Major Learning Outcomes** : Communication skills, Database Internals, Distributed Systems

**Details of Papers/patents** : None

**Brief Description of working environment, expectations from the company** : Work environment is nice. There is an open door policy and thus even the interns can easily approach senior engineers.

**Academic courses relevant to the project** : DBMS, OOPS

**PS-II STATION : ZEPTO ,BENGALURU**

**FACULTY NAME: LUCY J. GUDINO**

**STUDENT NAME: PATIL MANAS SUDHIR (2020B2A32020G)**

### **Student Write-up**

**PS-II Project Title:** Strategic Growth & User Clustering: Enhancing SS BP Penetration Through Data-Driven Insights

**Short Summary of work done during PS-II :** At Zepto, I worked in the Growth team where I contributed to multiple high-impact projects. My key responsibilities included leading CRM experiments, including the launch and tracking of coupon campaigns that led to 3% traffic and 1.5% order uplift. I also owned the analysis of the Electronics GC experiment and helped improve the BP% by 0.5%. I was involved in setting up dashboards on Mixpanel to track the impact of various pricing interventions and cohort-level experiments. I led RCA efforts to investigate data pipeline errors and optimize tracking dashboards for performance monitoring. Additionally, I played a key role in CRM ops setup post-midterm, where we tracked 8+ campaigns weekly and generated actionable insights. These experiences enabled me to blend data, product, and operations to drive tangible growth metrics for the business.

**Tool used (Development tools - H/w, S/w) :** Software: Mixpanel, Databricks Google Sheets, Excel, SQL, Collaboration: Slack

**Objectives of the project :** To improve the bill penetration and CRM traffic on platform

**Major Learning Outcomes :** Gained hands-on experience with product experimentation using data-driven decision-making frameworks.

Developed the ability to own end-to-end growth campaigns, from hypothesis-building to RCA and performance tracking.

Built dashboards and analytical pip

**Details of Papers/patents : N/A**

**Brief Description of working environment, expectations from the company :** The working environment at Zepto was dynamic, collaborative, and fast-paced. I worked within the Growth team, closely coordinating with stakeholders from Product, Engineering, and CRM. The company followed a flat structure with open communication, enabling interns to contribute meaningfully from day one. I was encouraged to take ownership of projects and propose solutions independently, which greatly enhanced my opportunity-solving and execution capabilities. The expectation from Zepto was to get exposure to real-world product operations, data-driven decision-making, and business experimentation. These expectations were exceeded as I worked on impactful experiments and learned from highly motivated mentors and peers. Overall, the internship provided an enriching startup experience, combining data analytics, strategic thinking, and operational execution.



**Academic courses relevant to the project :** Professional Ethics

**PS-II STATION : ZOMATO (GROFERS) ,GURGAON**

**FACULTY NAME: NEHA VINAYAK**

**STUDENT NAME: RATHI HARSH PRAFUL (2020B3A70794P)**

### **Student Write-up**

**PS-II Project Title:** Optimizing In-Store Picking Path for Dark Store Fulfillment

**Short Summary of work done during PS-II :** During my PS-II at Blinkit (Zomato), I worked in the StoreOps engineering team on a project to optimize the in-store picking path for pickers inside dark stores. The goal was to minimize the time pickers take to collect items for customer orders by computing the shortest or most efficient walking sequence. We modeled the store layout as a graph and used a hybrid algorithm—an exact approach for small orders and a Nearest Neighbor + 2-Opt heuristic for larger ones—to suggest the best sequence. I also worked on real-time fallback systems to recompute paths if deviations occurred and implemented caching strategies using Redis. The final system showed a 15–25% improvement in picking time and a 10–15% increase in picker throughput in controlled rollouts. The experience gave me practical exposure to balancing real-world constraints like latency, human behavior, and scaling systems.

**Tool used (Development tools - H/w, S/w) :** Languages: Java, Go Messaging: Kafka Databases: PostgreSQL Caching: Redis Containerization: Docker Monitoring: Grafana, Datadog Version Control: Git

**Objectives of the project :** To reduce item picking time inside dark stores by building a backend system that computes the most efficient path for pickers to collect items from racks, enhancing overall order fulfillment speed and operational productivity.

**Major Learning Outcomes :** Applied algorithmic techniques like Nearest Neighbor and 2-Opt in real-world systems.

Understood trade-offs between optimality and computation time

Gained hands-on experience with Kafka event systems and caching strategies Learned how to design fallback

**Details of Papers/patents : None**

**Brief Description of working environment, expectations from the company :** The working environment at Blinkit was fast-paced and highly collaborative. Despite being interns, we were

treated as full members of the engineering team and were given ownership of meaningful, production-level projects.

There was a strong culture of engineering best practices—code reviews, documentation, observability, and continuous deployments. The mentorship was hands-on, and we had regular check-ins to track progress and unblock challenges.

The company expected us to be proactive, take ownership, and understand the operational impact of the tech we build, especially since Blinkit's USP is ultra-fast delivery. I was encouraged to think beyond code—to measure impact, prioritize edge cases, and create fallbacks. Overall, it was a growth-oriented, supportive, and high-impact environment.

**Academic courses relevant to the project :**

Data Structures and Algorithms

Operating Systems

Database Systems

Computer Networks

Software Engineering

Object-Oriented Programming

Optimization Techniques