



**Association for
Computing Machinery**

Advancing Computing as a Science & Profession

NEWS RELEASE

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2021 ACM STUDENT RESEARCH COMPETITION WINNERS ANNOUNCED

Graduate and Undergraduate Students Received Travel Grants to Present Their Work at Major ACM Conferences

New York, NY, July 8, 2021 – The winners of the 2021 Grand Finals of the Association for Computing Machinery (ACM) Student Research Competition (SRC) were recently announced, culminating a year-long competition in which 296 computer science students presented research projects at 21 ACM conferences. Jiaqi Gu, University of Texas at Austin; Konstantinos Kallas, University of Pennsylvania; and Guyue Huang, Tsinghua University took the top three places among graduate students. Thomas B. McHugh, Northwestern University; Chuangtao Chen, Zhejiang University; and Rakshit Mittal, Birla Institute of Technology & Science took the top three spots among undergraduates.

Microsoft sponsors the SRC by providing travel grants of \$500 to allow exemplary computing students to attend and present their research at major ACM computing conferences around the world. Through the Student Research Competition, each participating student has the unique opportunity to attend conference sessions, gain a new understanding of the practical applications of computer science scholarship, and share their own research with other students, conference attendees and eminent scientists and practitioners. For most students, the ACM Student Research Competition is their introduction to participating in premier computing research conferences.

“Despite the impact of the COVID pandemic, the ACM Student Research Competition celebrated another successful year,” said ACM President Gabriele Kotsis. “The SRC opens up the world of professional computing research to students. As the organizers of the competition, we are always heartened to read the testimonials students write after the competition ends. A common thread that runs through all the testimonials is that participation in the competition is a memory that will stay with them. We also offer SRC participants Student Membership to ACM, which gives these young people access to a range of essential resources for learning and career development and keeps them connected with the broader computing community. We thank our friends at Microsoft for their ongoing support of the SRC.”

“We congratulate the Graduate and Undergraduate winners, as well as all who participated in this year’s SRC,” said Evelyne Viegas, Senior Director of Global Research Engagement at Microsoft Research.

“Computing has become interwoven into almost every aspect of life and business. New innovations, brought about by computing research, will play an important role in addressing the challenges we will face in the coming years. The ACM Student Research Competition prepares students for the future contributions they will make. As active participants in the global research community, SRC students are given access to the world’s top computing conferences that empower them to engage in dialogue and share their ideas before experts and peers.”

Judges assess each presenter’s demonstrated knowledge, the caliber of student contributions to the research and the overall quality of their oral and visual presentations. The most successful student researchers move through the competition’s stages. In the first stages, their research posters and presentations are evaluated for content and presentation. During the Grand Finals, the students share a written 4,000-word description of their work before the final step of the competition, when an entirely new panel of judges evaluates each student’s complete body of work and selects the overall winners.

The 2020 Student Winners:

Graduate Category

- First Place: Jiaqi Gu, University of Texas at Austin, ICCAD 2020, for his research project [“Light in Artificial Intelligence: Efficient Neuromorphic Computing with Optical Neural Networks.”](#)
- Second Place: Konstantinos Kallas, University of Pennsylvania, POPL 2021, for his research project, [“Data-Parallel Shell Scripting.”](#)
- Third Place: Guyue Huang, Tsinghua University, SIGMICRO 2020, for her research project, [“Efficient Sparse Matrix Kernels based on Adaptive Workload-Balancing and Parallel-Reduction.”](#)

Undergraduate Category

- First Place: Thomas B. McHugh, Northwestern University, ASSETS 2020, for his research project, [“Constructing Agency and Usability Through Community-Driven Assistive Technology Design.”](#)
- Second Place: Chuangtao Chen, Zhejiang University, ICCAD 2020, for his research project, [“Optimally Approximated Floating-Point Multiplier.”](#)
- Third Place: Rakshit Mittal, Birla Institute of Technology & Science, PLDI 2020, for his research project [“Translation Validation of Thread-Level Parallelizing Transformations using Color Petri Nets.”](#)

About the ACM Student Research Competition

[The ACM Student Research Competition](#) (SRC), sponsored by Microsoft, offers a unique forum for undergraduate and graduate students to present their original research at well-known ACM sponsored and co-sponsored conferences before a panel of judges and attendees. The SRC is a joint venture of ACM and Microsoft, which has provided generous funding of \$120,000 per competition year for this event since 2003. The top three undergraduate and graduate winners at each SRC receive prizes of \$500, \$300, and \$200, respectively (USD), an award medal and a one-year complimentary ACM student membership with access to ACM’s Digital Library.

About ACM

[ACM, the Association for Computing Machinery](#), is the world’s largest educational and scientific computing society, uniting computing educators, researchers and professionals to inspire dialogue, share resources and address the field’s challenges. ACM strengthens the computing profession’s collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.