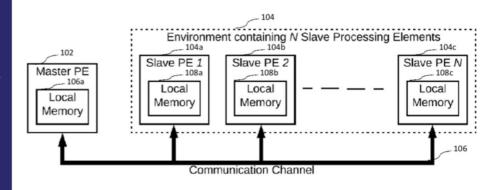






(IN202011039994)
Architecture-independent virtual machine for parallelization of

clustering algorithms



### **NEED**

As data complexity grows, clustering large datasets for machine learning becomes slow and resource-intensive. What if the clustering process could be parallelized efficiently, speeding up data analysis?

## **MARKET ANALYSIS**

The global AI and machine learning market is projected to grow at a CAGR of 39.6% from 2023 to 2033. [Source: Grand View Research, 2023]. This patent addresses a critical need for faster data processing.

### **TECHNOLOGY OVERVIEW**

This invention provides a method for parallelizing a clustering process using multiple processing elements (PEs), enabling faster data analysis in machine learning and data mining tasks. The method improves efficiency by partitioning data and processing it across distributed or shared-memory architectures.

# **Target Industries**

Data Science, Cloud Computing, AI/ML Development., Cloud service providers, data analytics companies, machine learning practitioners, AI technology developers, IT infrastructure providers, system integrators, and data storage providers.

## **TECHNOLOGY KEY FEATURES**

Efficient parallelization, master-slave PE communication, VM program code execution, distributed/shared memory architectures, faster clustering, data partitioning, scalable processing, improved data handling, reduced processing time, optimized for machine learning.

### AT A GLANCE

 SDG 9 (Industry, Innovation, and Infrastructure), SDG 12 (Responsible Consumption and Production)

#### Read more here

Technology is available for licensing/ co-development.

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