



Significance of Cloud Computing in Machine Learning

Sherly Williams*

Department of Communication Sciences, University of Pisa, Pisa, Italy

DESCRIPTION

Machine Learning (ML) is defined as the algorithms that parse data sets and then learn from them in order to make informed decisions. In the case of machine learning, the computer programme learns from experience by performing some tasks and observing how the performance of those tasks improves over time. Machine learning algorithms are designed to solve real-world problems through automated tasks in a variety of industries. These services could range from on-demand music to data security.

Cloud computing is a computing paradigm that provides on demand, scalable, measured and secure services to the end users over the internet. The numerous benefits of cloud computing are one of the reasons why it is booming in the current market scenario. According to Gartner, the global public cloud service market will be worth \$247 billion by 2020, or approximately \$383 billion. Most of us are familiar with the abbreviations for these three major cloud solutions; however, before going into detail, we will explain the terms using a simple analogy.

The Internet of Things (IoT) is a platform that provides cloud services such as data storage and processing *via* the Internet. Cloud-based ML models have recently gained popularity. It begins by invoking input data from the client, then processes machine learning algorithms over cloud servers using Artificial Neural Network (ANN), and returns output to the client. The client's sensitive information may be stored on the server in this scenario, raising privacy concerns and making users hesitant to use the services. Cloud computing is the most convenient way to process large amounts of data generated by IoT over the internet. It is commonly used as an event processing engine in real-time project scenarios.

Cognitive computing is a subset of technology that uses artificial intelligence and signal processing to mimic human actions. The combination of cloud and machine learning technologies is known as cognitive cloud, and it can be used to access cognitive computing applications. The cognitive cloud is thought to be a self-learning process that can perform human-like tasks without the need for human intervention. It performs human-like actions by utilizing various machine learning algorithms such as neural networks, pattern recognition, natural language processing, data mining, and so on. It can be used in a variety of industries, including retail, logistics, banking and finance, power and energy, cyber security, healthcare, education, and many others.

SIGNIFICANCE

Machine learning in combined with cloud computing is crucial for next-generation technologies. Cloud computing is increasing the demand for machine learning because it provides an ideal environment for machine learning models with a large amount of data. It can also be used to train new systems, identify patterns, and make predictions. The cloud provides a scalable, on-demand environment for data collection, storage and processing.

The cloud service providers recognize the importance of machine learning in the cloud, which is increasing the demand for cloud-based ML models from small, medium, and large businesses. Machine learning and cloud computing are diametrically opposed. If machine learning makes cloud computing more enhanced, efficient, and scalable, cloud computing also broadens the horizon for machine learning applications.

Correspondence to: Sherly Williams, Department of Communication Sciences, University of Pisa, Pisa, Italy, E-mail: sherly.williams@pisa.it

Received: 17-Oct-2022, Manuscript No. SIEC-22-19341; **Editor assigned:** 19-Oct-2022, Pre QC No. SIEC-22-19341 (PQ); **Reviewed:** 31-Oct-2022, QC No SIEC-22-19341; **Revised:** 07-Nov-2022, Manuscript No. SIEC-22-19341 (R); **Published:** 17-Nov-2022, DOI: 10.35248/2090-4908.22.11.281.

Citation: Williams S (2022) Significance of Cloud Computing in Machine Learning. Int J Swarm Evol Comput. 11:281.

Copyright: © 2022 Williams S. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.