## **Comprehensive Study of Data Science**

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**Abstract** : Today's generation is totally dependent on technology that uses data as its fuel. The present study is all about innovations and developments in data science and gives an idea about how efficiently to use the data provided. This study will help to understand the core concepts of data science. The concept of artificial intelligence was introduced by Alan Turing in which the main principle was to create an artificial system that can run independently of human-given programs and can function with the help of analyzing data to understand the requirements of the users. Data science comprises business understanding, analyzing data, ethical concerns, understanding programming languages, various fields and sources of data, skills, etc. The usage of data science has evolved over the years. In this review article, we have covered a part of data science, i.e., machine learning. Machine learning uses data science for its work. Machines learn through their experience, which helps them to do any work more efficiently. This article includes a comparative study image between human understanding and machine understanding, advantages, applications, and real-time examples of machine learning. Data science is an important game changer in the life of human beings. Since the advent of data science, we have found its benefits and how it leads to a better understanding of people, and how it cherishes individual needs. It has improved business strategies, services provided by them, forecasting, the ability to attend sustainable developments, etc. This study also focuses on a better understanding of data science a better world.

Keywords : data science, machine learning, data analytics, artificial intelligence

Conference Title : ICCSIE 2023 : International Conference on Computer Science and Information Engineering

Conference Location : Zurich, Switzerland

Conference Dates : January 16-17, 2023

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