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Big Data and Data Science

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Brief Description

Data Science is the field that comprises of everything that is related to data cleansing, data mining, data preparation, and data analysis. Big data refers to the vast volume of data that is difficult to store and process in real time. This data can be used to analyze insights which can lead to better decision making.

Big Data creates significant new opportunities for organizations to derive new value and create competitive advantages from their most valuable asset: information. Big Data helps drive efficiency, quality, and personalized products and services, producing improved levels of customer satisfaction and profit. Big Data analytics enable new avenues of investigation with potentially richer results and deeper insights than previously available. Big Data analytics integrate structure and unstructured data with real-time feeds and queries, opening new paths to innovation and insight. Data science is the backbones that determines the underlying algorithm behind search engine results. It propels the search engine bots to crawl through the diverse content available on the internet. Data Science provides meaningful information based on large amounts of complex data. Data science, or data driven science, combine different fields of work in statistics and computation to interpret data for decision making process. Big Data Analysis is the use of advances analytic techniques against very large, diverse data sets that include structured, semi-structured and unstructured data, from different sources, and in different sizes from terabytes to zettabytes. Big Data is a term applied to data sets whose size or type is beyond the ability of traditional relational databases to capture, manage and process than data with low latency. Big data has one or more of the following characteristics: high volume, high velocity or high variety. Artificial Intelligence(AI), mobile, social and Internet of Things(IOT) are driving data complexity through new forms and sources of data.

Abstract

Big Data creates significant new opportunities for organizations to derive new value and create competitive advantages from their most valuable asset: information. Big Data helps drive efficiency, quality, and personalized products and services, producing improved levels of customer satisfaction and profit. Big Data analytics enable new avenues of investigation with potentially richer results and deeper insights than previously available. Big Data analytics integrate structure and unstructured data with real-time feeds and queries, opening new paths to innovation and insight.

Data Science tends to use disaggregated data in a more forward- looking, exploratory way, focusing on analyzing the present and enabling informed decisions about the future. Data is ruling the world, irrespective of the industry it caters to. And the need to utilize the Big Data efficiently data has brought data science and data analytics tools to the forefront. Data science broadly covers statistics, data mining, data analytics and machine learning for intricately understanding and analyzing 'Big Data'. Data Science provides meaningful information based on large amounts of complex data or big data. Data science, or data driven science combines different fields of works in statistics and computation to interpret data for decision making processing

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Data science is emerging as a field that is revolutionizing science and industries alike. Work across nearly all domains is becoming more data driven, affecting both the jobs that are available and the skills that are required. As more data and ways of analyzing them become available, more aspects of the economy, society, and daily life will become dependent on data. It is imperative that educators, administrators, and students begin today to consider how to best prepare for and keep pace with this data-driven era of tomorrow.