**Data science vs Analytics vs ML**

**Data Science vs Data Analytics vs Big Data**

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Data science is like house that hold the tools and methods,where data analytics is specific room in that house.

Data Science is a field that comprises of everything that related to data cleansing, preparation, and analysis.

It is the combination of statistics, mathematics, programming, problem-solving, capturing data in ingenious ways, the ability to look at things differently, and the activity of cleansing, preparing and aligning the data.

It deals with semistructrued ,unstructured and structured data and helps in artificial intelligence and machine learning.

It is the umbrella of techniques used when trying to extract insights and information from data.

Data science delves into the world of the unknown by trying to find new patterns and insights. Instead of checking a hypothesis, like what is usually done with data analytics, data science tries to build connections and plan for the future.

Data science often moves an organization from inquiry to insights by providing new perspective into the data and how it is all connected that was previously not seen or known.

Data analytics is more focused than data science because instead of just looking for connections between data, data analysts have a specific goal in minding that they are sorting through data to look for ways to support. Data analytics is often automated to provide insights in certain areas.

The focus of Data Analytics lies in inference, which is the process of deriving conclusions that are solely based on what the researcher already knows.

Data Analytics the science of examining raw data with the purpose of drawing conclusions about that information.

Data Analytics involves applying an algorithmic or mechanical process to derive insights. For example, running through a number of data sets to look for meaningful correlations between each other.

It is used in a number of industries to allow the organizations and companies to make better decisions as well as verify and disprove existing theories or models.

Big Data is something that can be used to analyze insights which can lead to better decisions and strategic business moves.

Big Data refers to humongous volumes of data that cannot be processed effectively with the traditional approach. The processing of Big Data begins with the raw data that isn’t aggregated and is most often impossible to store in the memory of a single computer.

Both unstructured and structured, Big Data inundates a business on a day-to-day basis.

Big data is high-(volume,velocity,variety) information that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation.

**Difference roles:**

**Data Scientist** -They take an big volume of messy data (unstructured and structured) and use their skills in math, statistics and programming to clean, massage and organize them.He is in charge of making predictions to help businesses take accurate decisions.Data scientists equipped with foundation of computer applications, modeling, statistics and math. He is responsible to solve business problems.

**Data Analyst**-They perform tasks like collecting, organizing data and obtaining statistical information out of them. he is responsible to present the data in the form of charts, graphs and tables and use the same to build relational databases for organizations. Analyst has depth knowledge of SQL.

**Data Engineers**-It is typically software engineers . data engineers are responsible for compiling and installing database systems, writing complex queries, scaling to multiple machines, and putting disaster recovery systems .They develop, construct, test and maintain architectures such as databases and large-scale data processing systems.

-Chandrashekhar

Hadoop Trainer