

Data Science

In our ever-increasingly connected world, it has become important to not only extract data, but put meaning to it to solve business problems and make crucial business decisions. Data scientists are big data wranglers, gathering and analyzing large sets of structured and unstructured data. A data scientist's role combines computer science, statistics, and mathematics. They analyze, process, and model data then interpret the results to create actionable plans for companies and other organizations. This should not be confused with big data and data analytics.



What is Data Science?	What is Big Data?	What is Data Analytics?
A field that refers to the collective processes, theories, concepts, tools, and technologies that enable the review, analysis, and extraction of valuable knowledge and information from raw data. Also applying industry knowledge, skepticism of existing assumptions to create large-scale solutions.	Big data is essentially larger, more complex data sets especially deriving from new data sources. It refers to voluminous amount of structured or unstructured data that is being received and (perhaps acted on) at a high velocity (Oracle) that organizations can potentially mine and analyze for business gains.	Data analytics is qualitative and quantitative techniques and processes used to enhance productivity and business gain. The data is extracted and arranged in a way to give meaning to the information, identify and analyze behavioral data and patterns, draw conclusions from it.
Use Cases	Use Cases	Use Cases
<ul style="list-style-type: none"> • Digital systems • Machine learning and AI • Image/speech recognition • Search Engine Exploration • Social Media • Banking / E-commerce 	<ul style="list-style-type: none"> • Customer experience • Fraud and compliance • Machine Learning • Predictive maintenance • Product development 	<ul style="list-style-type: none"> • Gaming • Healthcare • Energy
Tools & Languages	Tools & Languages	Tools & Languages
Python SAS SQL	Hadoop Hive NoSQL Oracle	R SQL Tableau Apache Spark Power BI