

Data science is an interdisciplinary field focused on extracting knowledge from typically large data sets and applying the knowledge and insights from that data to solve problems in a wide range of application domains. Data science is multifaceted and can be described as a science, a research paradigm, a research method, a discipline, a workflow, and a profession. He reasoned that a new name would help statistics shed inaccurate stereotypes, such as being synonymous with accounting or limited to describing data. Both fields require a solid foundation in statistics, programming, and data visualization, as well as the ability to communicate findings effectively to both technical and non-technical audiences. Data science is an interdisciplinary field focused on extracting knowledge from typically large data sets and applying the knowledge and insights from that data to solve problems in a wide range of application domains. Though it was used by the National Science Board in their 2005 report "Long-Lived Digital Data Collections: Enabling Research and Education in the 21st Century", it referred broadly to any key role in managing a digital data collection. Data science also integrates domain knowledge from the underlying application domain (e.g., natural sciences, information technology, and medicine). F. While both fields involve working with data, data science is more of an interdisciplinary field that involves the application of statistical, computational, and machine learning methods to extract insights from data and make predictions, while data analysis is more focused on the examination and interpretation of data to identify patterns and trends. In 2012, technologists Thomas H. The modern conception of data science as an independent discipline is sometimes attributed to William S. The term "data science" has been traced back to 1974, when Peter Naur proposed it as an alternative name to computer science. Data scientists are responsible for breaking down big data into usable information and creating software and algorithms that help companies and organizations determine optimal operations. In 1985, in a lecture given to the Chinese Academy of Sciences in Beijing, C. Later, attendees at a 1992 statistics symposium at the University of Montpellier II acknowledged the emergence of a new discipline focused on data of various origins and forms, combining established concepts and principles of statistics and data analysis with computing. Davenport and DJ Patil declared "Data Scientist: The Sexiest Job of the 21st Century", a catchphrase that was picked up even by major-city newspapers like the New York Times and the Boston Globe. In 1985, in a lecture given to the Chinese Academy of Sciences in Beijing, C. However, the definition was still in flux. "Data science" became more widely used in the next few years: in 2002, the Committee on Data for Science and Technology launched the Data Science Journal. In 2012, technologists Thomas H. He reasoned that a new name would help statistics shed inaccurate stereotypes, such as being synonymous with accounting or limited to describing data. In 1962, John Tukey described a field he called "data analysis", which resembles modern data science. A data scientist is a professional who creates programming code and combines it with statistical knowledge to create insights from data. Data science is a "concept to unify statistics, data analysis, informatics, and their related methods" to "understand and analyze actual phenomena" with data.