

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. A decade later, they reaffirmed it, stating that "the job is more in demand than ever with employers". 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. The modern conception of data science as an independent discipline is sometimes attributed to William S. Many statisticians, including Nate Silver, have argued that data science is not a new field, but rather another name for statistics. Data science is multifaceted and can be described as a science, a research paradigm, a research method, a discipline, a workflow, and a profession. In 2003, Columbia University launched The Journal of Data Science. Turing Award winner Jim Gray imagined data science as a "fourth paradigm" of science (empirical, theoretical, computational, and now data-driven) and asserted that "everything about science is changing because of the impact of information technology" and the data deluge. Data science is multifaceted and can be described as a science, a research paradigm, a research method, a discipline, a workflow, and a profession. Data analysis typically involves working with smaller, structured datasets to answer specific questions or solve specific problems. "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. 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. Data analysts typically use statistical methods to test these hypotheses and draw conclusions from the data. In 1985, in a lecture given to the Chinese Academy of Sciences in Beijing, C. For instance, a data scientist might develop a recommendation system for an e-commerce platform by analyzing user behavior patterns and using machine learning algorithms to predict user preferences. He reasoned that a new name would help statistics shed inaccurate stereotypes, such as being synonymous with accounting or limited to describing data. F. In 1998, Hayashi Chikio argued for data science as a new, interdisciplinary concept, with three aspects: data design, collection, and analysis. In contrast, data science deals with quantitative and qualitative data (e.g., from images, text, sensors, transactions, customer information, etc.) and emphasizes prediction and action. After the 1985 lecture at the Chinese Academy of Sciences in Beijing, in 1997 C. In 2003, Columbia University launched The Journal of Data Science. F. In contrast, data science deals with quantitative and qualitative data (e.g., from images, text, sensors, transactions, customer information, etc.) and emphasizes prediction and action. In 2012, technologists Thomas H.