

Data analysis typically involves working with smaller, structured datasets to answer specific questions or solve specific problems. Despite these differences, data science and data analysis are closely related fields and often require similar skill sets. In 2012, technologists Thomas H. Davenport and D.J. Patil, many statisticians, including Nate Silver, have argued that data science is not a new field, but rather another name for statistics. As such, it incorporates skills from computer science, statistics, information science, mathematics, data visualization, information visualization, data sonification, data integration, graphic design, complex systems, communication and business. Vasant Dhar writes that statistics emphasizes quantitative data and description. The term "data science" has been traced back to 1974, when Peter Naur proposed it as an alternative name to computer science. 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. For example, a data analyst might analyze sales data to identify trends in customer behavior and make recommendations for marketing strategies. In 1962, John Tukey described a field he called "data analysis", which resembles modern data science. 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. They work at the intersection of mathematics, computer science, and domain expertise to solve complex problems and uncover hidden patterns in large datasets. F. Many statisticians, including Nate Silver, have argued that data science is not a new field, but rather another name for statistics. Jeff Wu used the term "data science" for the first time as an alternative name for statistics. Many statisticians, including Nate Silver, have argued that data science is not a new field, but rather another name for statistics. Stanford professor David Donoho writes that data science is not distinguished from statistics by the size of datasets or use of computing and that many graduate programs misleadingly advertise their analytics and statistics training as the essence of a data-science program. 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. While data analysis focuses on extracting insights from existing data, data science goes beyond that by incorporating the development and implementation of predictive models to make informed decisions. A data scientist is a professional who creates programming code and combines it with statistical knowledge to create insights from data. In 2003, Columbia University launched The Journal of Data Science. Data analysis typically involves working with smaller, structured datasets to answer specific questions or solve specific problems. 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. In 1985, in a lecture given to the Chinese Academy of Sciences in Beijing, C. F.