In 2012, technologists Thomas H. Moreover, both fields benefit from critical thinking and domain knowledge, as understanding the context and nuances of the data is essential for accurate analysis and modeling. Many statisticians, including Nate Silver, have argued that data science is not a new field, but rather another name for statistics. In 1985, in a lecture given to the Chinese Academy of Sciences in Beijing, C. Data science is multifaceted and can be described as a science, a research paradigm, a research method, a discipline, a workflow, and a profession. The modern conception of data science as an independent discipline is sometimes attributed to William S. This can involve tasks such as data cleaning, data visualization, and exploratory data analysis to gain insights into the data and develop hypotheses about relationships between variables. Data science is an interdisciplinary academic field that uses statistics, scientific computing, scientific methods, processes, algorithms and systems to extract or extrapolate knowledge and insights from noisy, structured, and unstructured data. For example, a data analyst might analyze sales data to identify trends in customer behavior and make recommendations for marketing strategies. Statistician Nathan Yau, drawing on Ben Fry, also links data science to human–computer interaction: users should be able to intuitively control and explore data. 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. However, the definition was still in flux. 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. Data analysts typically use statistical methods to test these hypotheses and draw conclusions from the data. In 2012, technologists Thomas H. The professional title of "data scientist" has been attributed to DJ Patil and Jeff Hammerbacher in 2008. After the 1985 lecture at the Chinese Academy of Sciences in Beijing, in 1997 C. Data science is an interdisciplinary academic field that uses statistics, scientific computing, scientific methods, processes, algorithms and systems to extract or extrapolate knowledge and insights from noisy, structured, and unstructured data. Many statisticians, including Nate Silver, have argued that data science is not a new field, but rather another name for statistics. "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. He reasoned that a new name would help statistics shed inaccurate stereotypes, such as being synonymous with accounting or limited to describing data. Data science and data analysis are both important disciplines in the field of data management and analysis, but they differ in several key ways. F. 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. 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.