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. Many statisticians, including Nate Silver, have argued that data science is not a new field, but rather another name for statistics. The professional title of "data scientist" has been attributed to DJ Patil and Jeff Hammerbacher in 2008. In addition to statistical analysis, data science often involves tasks such as data preprocessing, feature engineering, and model selection. 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. During the 1990s, popular terms for the process of finding patterns in datasets (which were increasingly large) included "knowledge discovery" and "data mining". In addition to statistical analysis, data science often involves tasks such as data preprocessing, feature engineering, and model selection. Cleveland. Despite these differences, data science and data analysis are closely related fields and often require similar skill sets. 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. In 1962, John Tukey described a field he called "data analysis", which resembles modern data science. In 1996, the International Federation of Classification Societies became the first conference to specifically feature data science as a topic. 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 analysts typically use statistical methods to test these hypotheses and draw conclusions from the data. The field encompasses preparing data for analysis, formulating data science problems, analyzing data, developing data-driven solutions, and presenting findings to inform high-level decisions in a broad range of application domains. 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. However, data science is different from computer science and information science. 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. 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. F. In 1962, John Tukey described a field he called "data analysis", which resembles modern data science. 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. 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. 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.