In summary, data analysis and data science are distinct yet interconnected disciplines within the broader field of data management and analysis. F. In 1962, John Tukey described a field he called "data analysis", which resembles modern data science. Andrew Gelman of Columbia University has described statistics as a non-essential part of data science. 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 addition to statistical analysis, data science often involves tasks such as data preprocessing, feature engineering, and model selection. However, the definition was still in flux. 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. They work at the intersection of mathematics, computer science, and domain expertise to solve complex problems and uncover hidden patterns in large datasets. F. 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. The professional title of "data scientist" has been attributed to DJ Patil and Jeff Hammerbacher in 2008. For example, a data analyst might analyze sales data to identify trends in customer behavior and make recommendations for marketing strategies. 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 scientists are often responsible for collecting and cleaning data, selecting appropriate analytical techniques, and deploying models in real-world scenarios. A decade later, they reaffirmed it, stating that "the job is more in demand than ever with employers". Big data is a related marketing term. Cleveland. Jeff Wu used the term "data science" for the first time as an alternative name for statistics. In 1996, the International Federation of Classification Societies became the first conference to specifically feature data science as a topic. 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 2003, Columbia University launched The Journal of Data Science. In addition to statistical analysis, data science often involves tasks such as data preprocessing, feature engineering, and model selection. Others argue that data science is distinct from statistics because it focuses on problems and techniques unique to digital data.