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. Jeff Wu used the term "data science" for the first time as an alternative name for statistics. F. 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. Jeff Wu used the term "data science" for the first time as an alternative name for statistics. Cleveland. In a 2001 paper, he advocated an expansion of statistics beyond theory into technical areas; because this would significantly change the field, it warranted a new name. Data science also integrates domain knowledge from the underlying application domain (e.g., natural sciences, information technology, and medicine). However, data science is different from computer science and information science. Data science and data analysis are both important disciplines in the field of data management and analysis, but they differ in several key ways. 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. Data analysts typically use statistical methods to test these hypotheses and draw conclusions from the data. He describes data science as an applied field growing out of traditional statistics. 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. 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. Data scientists often work with unstructured data such as text or images and use machine learning algorithms to build predictive models and make data-driven decisions. In 1998, Hayashi Chikio argued for data science as a new, interdisciplinary concept, with three aspects: data design, collection, and analysis. Data science is multifaceted and can be described as a science, a research paradigm, a research method, a discipline, a workflow, and a profession. Others argue that data science is distinct from statistics because it focuses on problems and techniques unique to digital data. 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. He describes data science as an applied field growing out of traditional statistics. The modern conception of data science as an independent discipline is sometimes attributed to William S. 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.