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. However, the definition was still in flux. 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. 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. 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. Both fields play vital roles in leveraging the power of data to understand patterns, make informed decisions, and solve complex problems across various domains. 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. Despite these differences, data science and data analysis are closely related fields and often require similar skill sets. 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. F. Jeff Wu used the term "data science" for the first time as an alternative name for statistics. The professional title of "data scientist" has been attributed to DJ Patil and Jeff Hammerbacher in 2008. Andrew Gelman of Columbia University has described statistics as a non-essential part of data science. Data analysis typically involves working with smaller, structured datasets to answer specific questions or solve specific problems. 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. 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. 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. 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. Data analysis typically involves working with smaller, structured datasets to answer specific questions or solve specific problems. Cleveland. 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. Andrew Gelman of Columbia University has described statistics as a non-essential part of data science. In 2012, technologists Thomas H.