***What is my understanding of “data science” (200 words)?***

If science is the study of the structure and behavior of the natural world, then data science is the study of data and its nature to discover the insights that are hidden within. Data scientists analyze data by combining statistical principles, machine learning algorithms, programming, and data analysis models to uncover meaningful insights. Data science is used in such a way to guide our decision-making and gain a competitive edge over competitors. There are a wide variety of applications for data science, including stock trading, targeted advertising, natural language processing, customer analytics, etc.

One great example of the application of data science is the use of classification algorithms such as random forests and logistic regression to determine the likelihood of customer churn (the likelihood a customer will cancel their service). Once the data has been analyzed, it is presented to other key decision-makers in easy-to-understand formats, such as graphs. Then with these newly found insights, businesses are able to develop new strategies and plan accordingly to stop customers churning, such as targeting those at risk of churning with retention campaigns. They can also discover the reasons behind customer churn by identifying them through the data that has been collected.