

# Taming the Bitcoin Beast

The world of cryptocurrencies is a mystery. Unlike fiat currencies and stock prices, they have no real asset backing the price at which they are being traded. Bitcoin in particular is extremely volatile and unpredictable. Bitcoin price was the most talked about item in the world in the last quarter of 2017. Why? It had appreciated 1000% in value from the beginning of the year! And 64% in November alone, with trends suggesting that it will close at 2000% its original value at the end of the year. The reason behind this meteoric rise? Anybody's guess would've been as good as ours. Sentiment seems to be the main factor thrusting the price up at breakneck speeds. This project looked at ways to understand this "beast".

The team first looked at correlations between stock market indices like Nasdaq, S&P 500 and Dow Jones for the last three years. We found a 77% correlation with the Dow Jones index. Correlations with alternate coins were then explored and an average correlation of about 90% was observed across the 16 coins in the study. Google trends data was then analysed and time series analysis indicated 73% prediction accuracy with a lag of 5 days. Finally, lots of information was scraped from various websites like bitcointalk, investfeed and twitter and NLP techniques were used to correlate the timing of various posts and comments and their effect on the bitcoin price. The prediction accuracy in this case came to be around 70%.

The next steps in this venture would be to find a way to feed all of this useful information into a neural network and determine the causality of these various features on the bitcoin price. Then an automatic trading algorithm could be deployed and millions or probably billions of dollars could be earned!