Introduction to Data Science Project Proposal

Participants:

Idan Bardugo

Subject

Effects on Bitcoin Price

Bitcoin is a decentralized digital currency without a central bank or single administrator that can be sent from user to user on the peer-to-peer network without the need for intermediaries.

Abstract:

In this project I will try to build a model for bitcoin future price prediction. I will try to find out what drives the price of Bitcoin whether the price is driven by several different variables I will try to find correlation between the exchange volume to the bitcoin price, and correlation between coins generation to changes in prices. I will also perform a sentiment analysis to check if the news affects bitcoin price.

Sources and workflow:

- I will base my project off of 3 datasets that contain historical data on bitcoin.
- In order to create a model that can predict, I plan on using LSTM.
- In order to build the LSTM model I will use keras.
- I will use the 2nd dataset to find correlation between the different attributes.
- I will use newsAPI to get historical articles on bitcoin, and then I will try to do a sentiment analysis.

Formulating the problem:

The main goals of this project are to try to find the real motivating factor for the price of the bitcoin. Because I'm relying on past data, it makes it a classic case to use the regression techniques that we've learned throughout the semester, though I will have to use a new kind of RNN, which can remember previous data, that is why I choose LSTM.

In order to see if my results are good, I plan on dividing my data into a testing set and training set and then comparing the testing set with the predictions I've gathered through the study set.