

Social Media Impact on Crypto-Currency: Key Results

Data Analysis & Model Training

- Low correlation between Tweet sentiments and the bitcoin prices with the obtained datasets. However, a large number of Tweets is mildly correlated with a rise in these prices.
- Time series data with a smaller window size of 10 works best on the LSTM model since the larger window sizes tend to overfit the data.
- Normalizing the data improved the validation accuracy of the model and prevented the loss metric from outputting very large numbers.
- Adding the aggregate hourly count of the number of positive and negative tweets improved the performance of the model on the validation set.
- There were few consistent crypto influencers who made more of an impact on these trends than other users. Optimizing the user ranking algorithm would be very beneficial for predicting these trends more accurately.

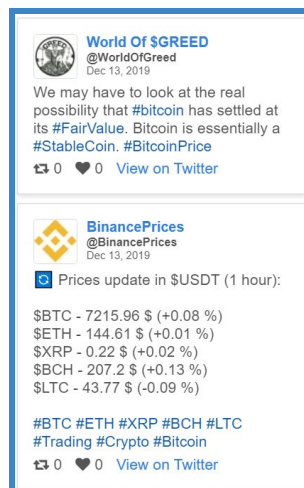
Top Users and Popular Users

- Our model predicts a list of users who are most influential by calculating the popularity index on each tweet and time frame.
- We obtained the prediction results with 90% correct comparing it with twitters top persons.
- Another set of users who were most influential in Bitcoin price manipulation was present with the greatest number of mentions to them.
- We were successfully able to predict the most popular users who were tweeted most.

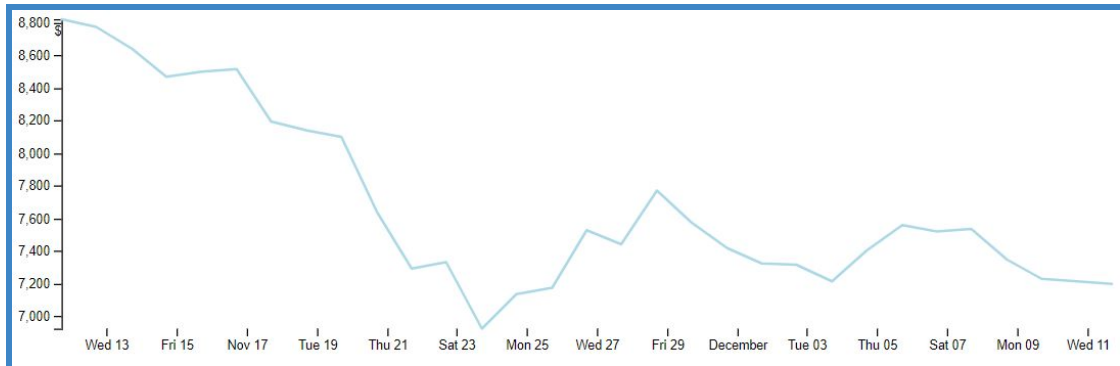
We found this accurate as we could navigate to the user profile and found their popularity index

Dashboard

- The data visualization shows five main aspects
- The first aspect is Live Twitter Data with #bitcoin. This we picked from Embedded Twitter APIs. This is needed to see how live Twitter data impacts bitcoin value prices



- The second aspect is the Live Bitcoin Data from Coin Market APIs. This helps us know the current price with which we can compare the predicted prices



- The third aspect is Top Users of #bitcoin. This helps us know who are the people impacting the prices

TOP USERS
22loops
APompliano
9000x
AaronFarrellUK
AP4Liberty
AirWireOfficial
AirdropLand
6BillionPeople
AXenS_io
ANONLMAL

- The fourth aspect is Popular Users of #bitcoin. This helps us know who are the influential people that impact the prices

POPULAR USERS
YouTube
yabtc1
wcxofficial
Bitcoin
freecoinhunt
hitbtc
CoinDesk
coinbase
BTCClicks
Cointelegraph

- The fifth aspect is Predicted Prices. We can know the accuracy and error rate of the model



Below is the dashboard which depicts the above-mentioned aspects

