

Project Findings

- It's interesting to find that there are a total of 1843 cryptocurrency in the market.
- Out of these 1843, the top 5 crypto currencies with their highest market capitalizations are Bitcoin(BTC), Ethereum(ETH), Lite coin (LTC), IOTA (MIOTA), Ripple (XRP) in the same order.
- Although the market capitalization of these top 5 cryptos are higher, one need to concentrate on the under estimated cryptos as well as the biggest gainers of this week are Decentraland (MANA), Ripple (XRB), Populous (PPT), TRON (TRX), Lite coin (LTC). Observing this, though MANA, PPT, TRX don't have good market capitalization, these are the top performers of this week. So, one may gain profit in investing these altcoins.
- Be very careful in investing in Quoine (QASH), Crypterium (POWR), Walton (WTC), TEnX (PAY), Status (SNT) as they are found to be the biggest losers of this week
- With our code written for market capitalization, biggest gainers, biggest losers, one may use this code to get the latest updates, which will update for every 1 hour. So one may check biggest gainers and losers for every 1 hour and then may take a decision about which cryptos to invest in.
- Bitcoin price has increased exponentially from 2017. According to the latest news, bitcoin is found to be in a bubble. On 5th December it has touched its ever highest of 19000 USD
- Bitcoin prices varied across different exchanges during some particular times. These are due to the technical issues in that exchange. Our code took care of this, by taking the bitcoin price average across 3 different exchanges.
- Plotted different altcoins DASH, ETH, ETC, LTC, SC, STR, XEM, XMR, XRP, BTC and a heat map of the correlation matrix. In 2016 only bitcoin and lite coin are significantly correlated and correlation between other cryptos is not significant. But in 2017, correlation between all these cryptos has become very significant. These is also cross checked with plotting a word cloud of these cryptos where bitcoin is the highest talked word when people talk about other cryptos. This means people are actually seeing the effect of bitcoin price on different altcoin prices
- Correlation between percent change in S&P 500 and % change in bitcoin price is not so significant in the recent years as the bitcoin price is growing exponentially compared to S&P 500

- Bitcoin rich list: There are 2 people in this world who have more than 100000 bitcoins each with them and the bitcoin addresses of these 2 people are here:
3D2oetdNuZUqQHPJmcMDDHYoqkyNVsFk9r – 123342 BTC
16rCmCmbuWDhPjWTrpQGau3EPdZF7MTdUk – 119203 BTC
- Using google trends, number of people searching about bitcoin has drastically increased in 2017. Due to recent price hike of bitcoin, people started to search more about it
- Location wise, Nigeria is the place from where more number of searches about bitcoin are coming from
- From the yahoo finance news articles, negative words associated with bitcoin are: risk, volatile, shake, crisis, warning which are very relevant to current position of bitcoin in markets. And the positive words being: gain, strong, top
- Sentiment analysis between Bitcoin, lite coin and Ethereum showed that lite coin has more positive sentiment out of these 3 and Ethereum has highest negative sentiment
- Analyzing emotions lite coin has highest trust
- Polarity count and subjectivity count of tweets from twitter about bitcoin are 44 and 64
- Our code is so handy that it can be applied not only for cryptos but also for any stocks. Used the same code for text mining to find the sentiment about different stocks in S&P 500
- Apple, Amazon, Microsoft, Facebook, Johnson & Johnson are the stocks more talked about
- Fitted the bitcoin price using linear regression to predict future price.
- Macro analysis of bitcoin which tells: Unconfirmed transactions, Median transaction confirmation time, Average block size, Average no. of transactions per block, transaction fees earned by miners each day, Ratio of transaction fee to transaction volume, Number of transactions per day, Ratio of unique addresses to transactions, correlation between each time series to understand the dynamics of bitcoin
- This macro analysis is done to know the reason for sudden increase in unconfirmed transactions in July 2017 and limited 1MB block size per transaction is found to be the reason.

Note: All the results, graphs and analysis can be viewed in the iPython notebook as it has all the data.