



Bitcoin Predict

Machine Learning Project by

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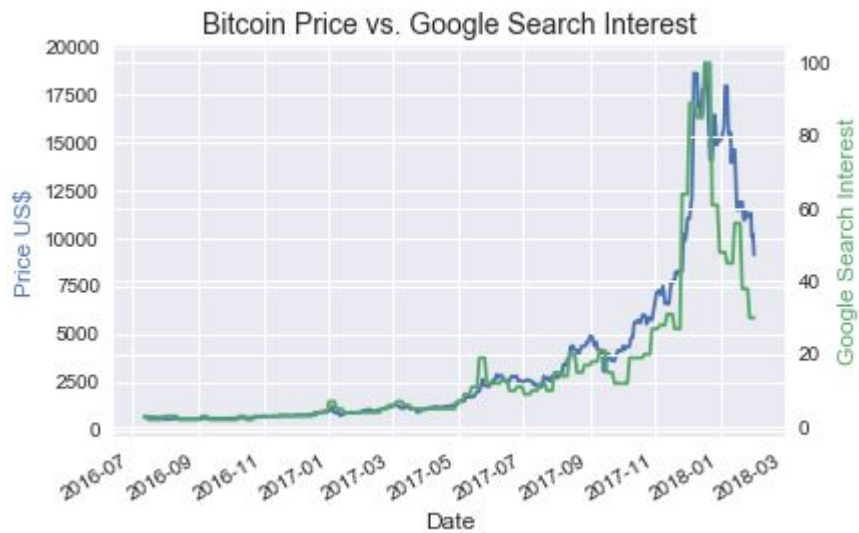
*not financial advisors

What we will accomplish

- We created a model that will predict next day BTC(Bitcoin) prices using past BTC and ETH(Etherium) Data
- We decided to use the following algorithms
 - Random Forest Regressor
 - K Neighbors Regressor
 - Linear Regression
- A well trained model can be used in a trading bot, for example.

Background -

- Two students from the University of Georgia created an algorithm to predict stock/cryptocurrency price patterns using genetic algorithms
- A Genetic Algorithm is a search technique used to find exact or approximate solutions to search and optimization problems and it seems it had around a 74% accuracy rate for this group
- They used the genetic algorithm to remove irrelevant factors included in cryptocurrency price predictions
- It's also used not only to improve the learning algorithm but also to reduce the complexity of the feature space
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- Wing Lee used Linear Regression to predict BTC prices and he took all the features that he felt were relevant such as closing prices, market capitalization, search interests,
- He graphed the correlations between the features as well and ended up getting a 97% accuracy rate
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Things we could improve

- We could try taking news into account
- Figure out most searched up stocks
- Increase our dataset size by using more currencies
- Neural network
- Use an API for live data

Conclusions

- Linear Regression proved to be the best algorithm for our dataset
- KNN and Random Forest Regression did not perform to the capacity we had anticipated or had hoped
- this shows that Linear Regression works well with bitcoin

In [46]: 1 results

Out[46]:

	Model	Mean Squared Error	R2 Score	Mean Absolute % Error
0	Random Forest Regressor	23810.314476	-4.715021	0.452130
1	KNN	36100.527324	-12.137559	0.757276
2	Linear Regression	1930.906966	0.962415	0.032953



Sources

<http://worldcomp-proceedings.com/proc/p2012/GEM4716.pdf>

<https://medium.com/hackerdawn/bitcoin-price-prediction-using-linear-regression-94e0e5a63c42>

[Binance Data](#)