

The Blockchain Guru Project

About Me

Tendai Meda

Bachelors in Mathematics

Data Science Enthusiast

Fun Fact: There are almost 100,000 Bitcoin millionaires

Me

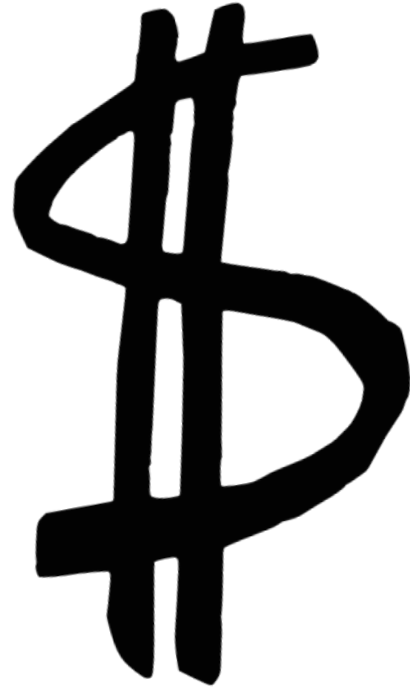


What is the Block Chain Guru Project?



The Block Chain Guru Project

The goal of the project is to predict future cryptocurrency prices for the purpose of helping people make smart investment decisions.



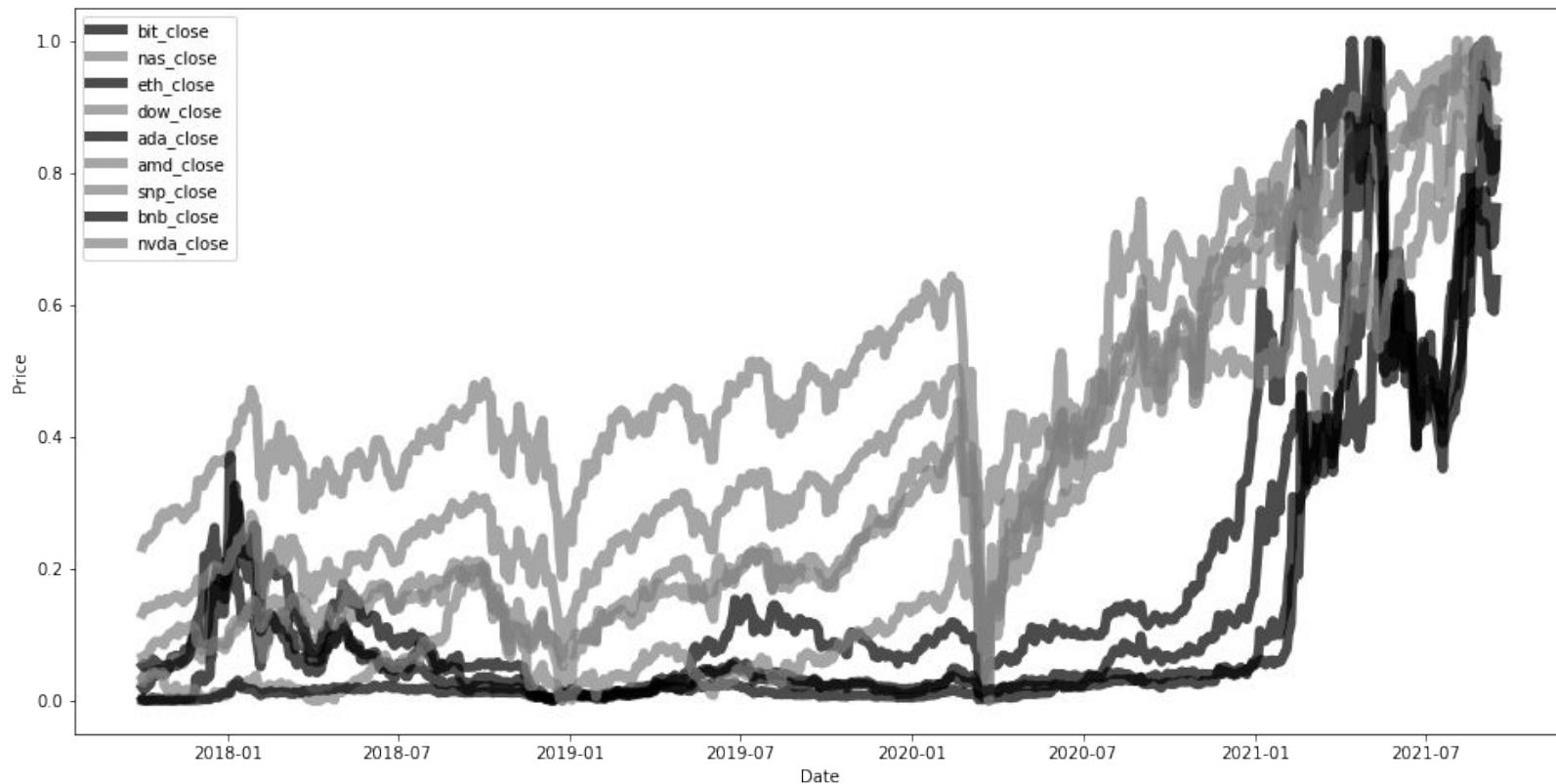


Why would anyone want to
invest in cryptocurrency?

Why invest in cryptocurrency?

- Diversification
- Accessibility
- Timing

Why invest in cryptocurrency?





Getting the data

Getting the Data



Cryptocurrencies

Bitcoin



Ethereum



BinanceCoin



Cardano



Stocks

Dow Jones



NASDAQ



S&P 500

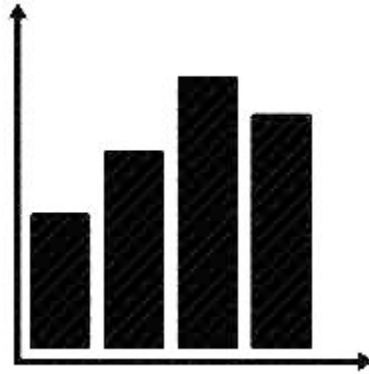


AMD



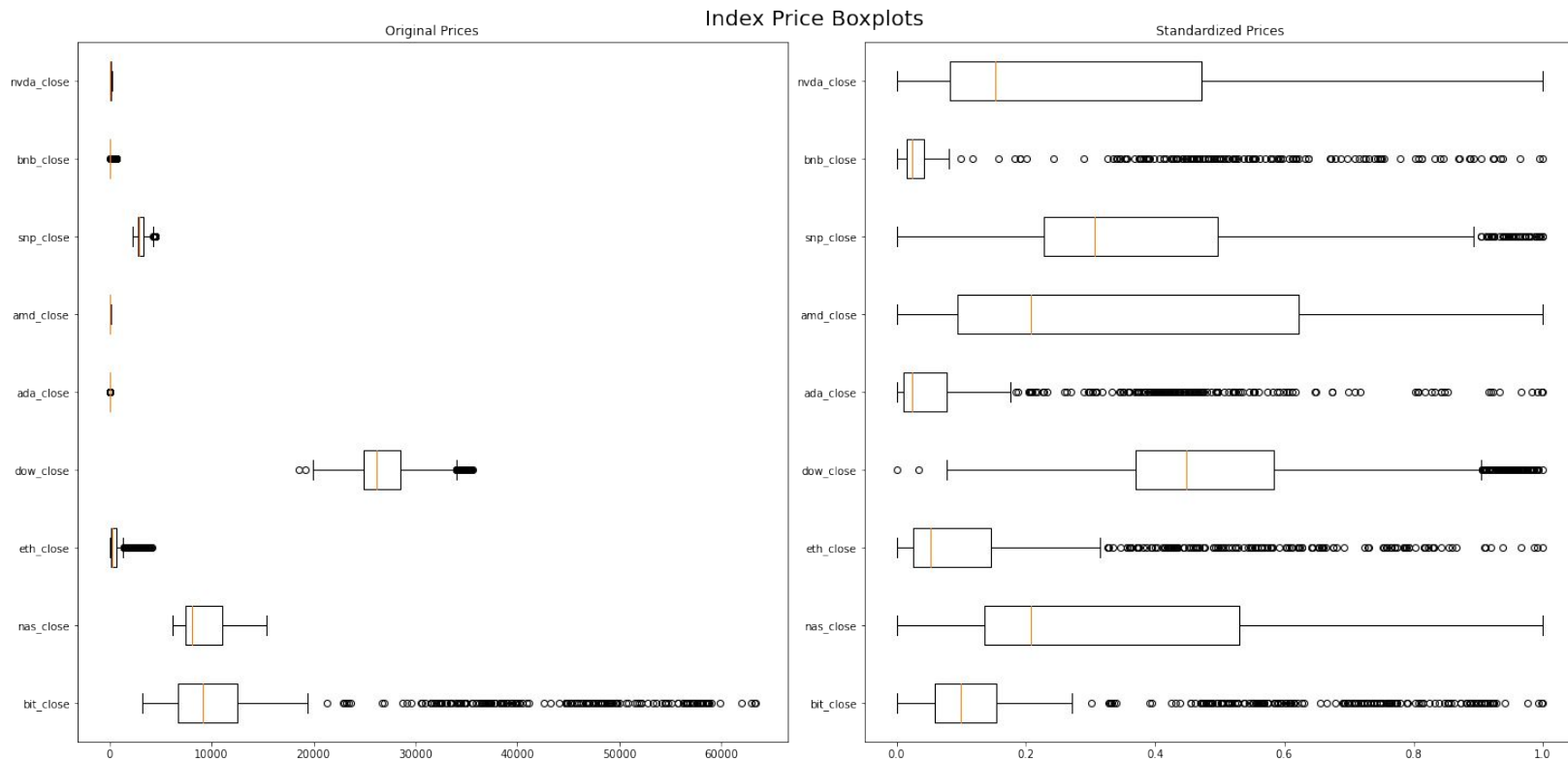
NVIDIA



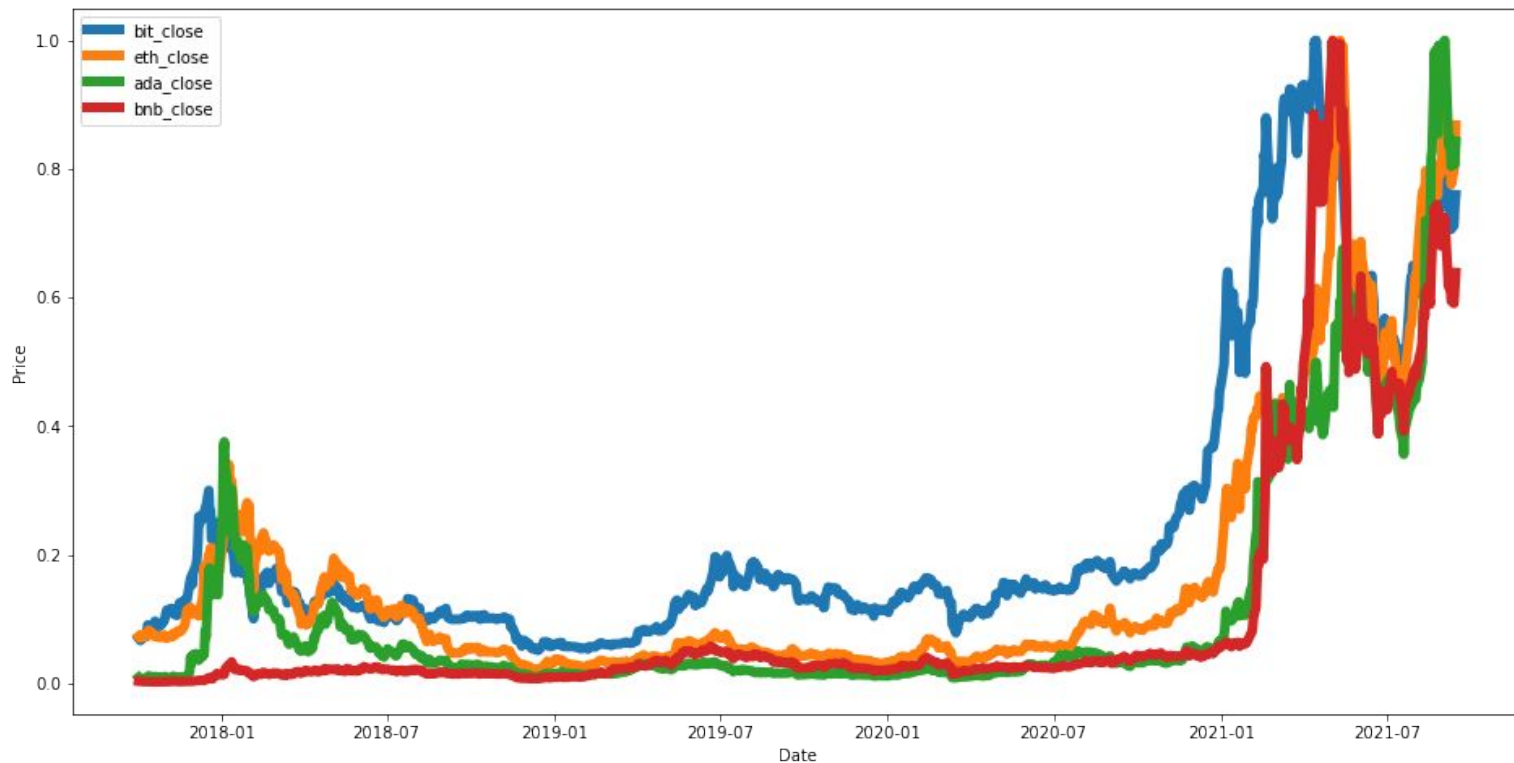


Exploring the data

Exploring the data

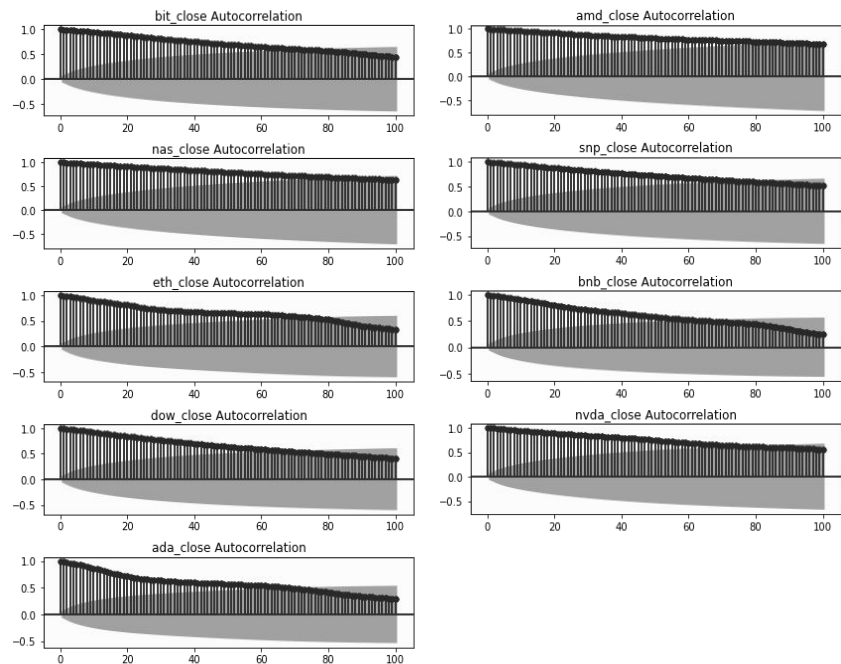


Exploring the data

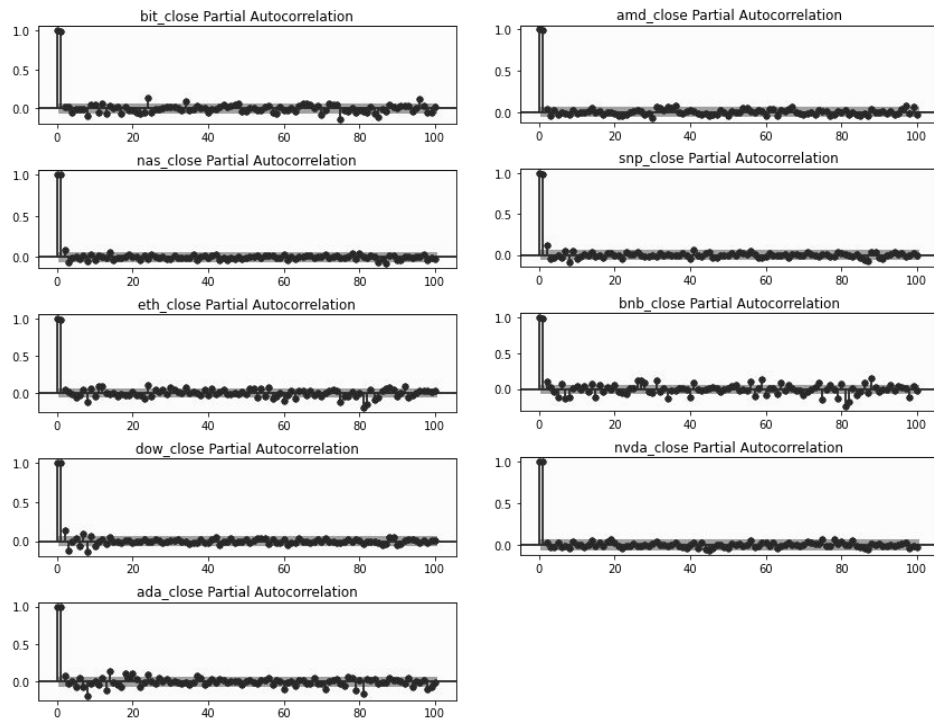


Exploring the data

Autocorrelation

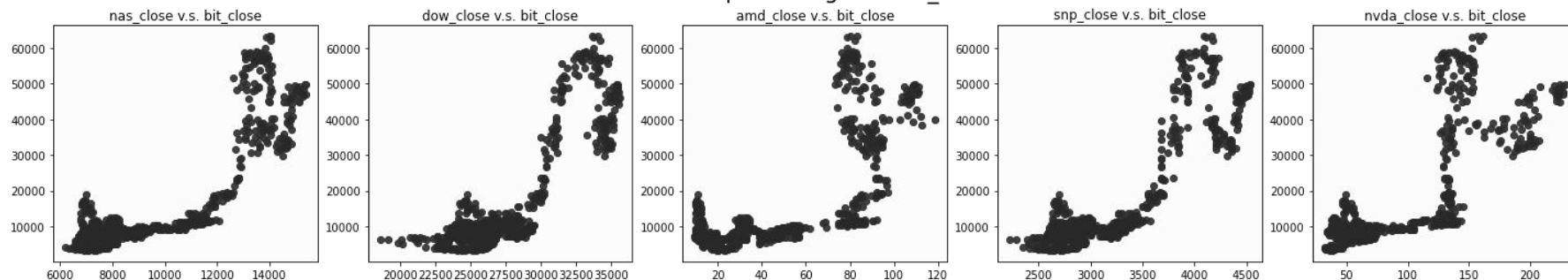


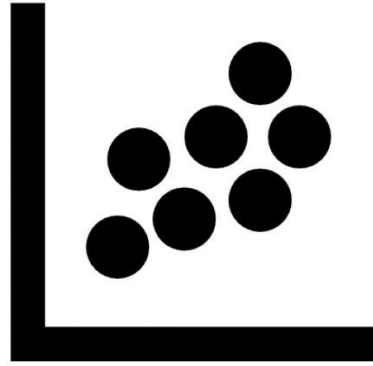
Partial Autocorrelation



Exploring the data

Variables plotted against bit_close





Modeling the data

Modeling

I developed 5 models

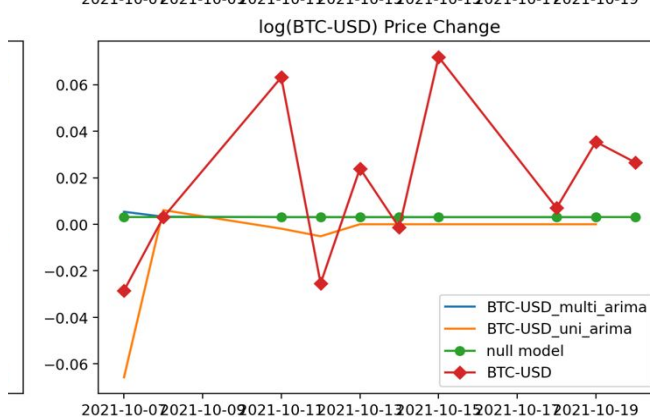
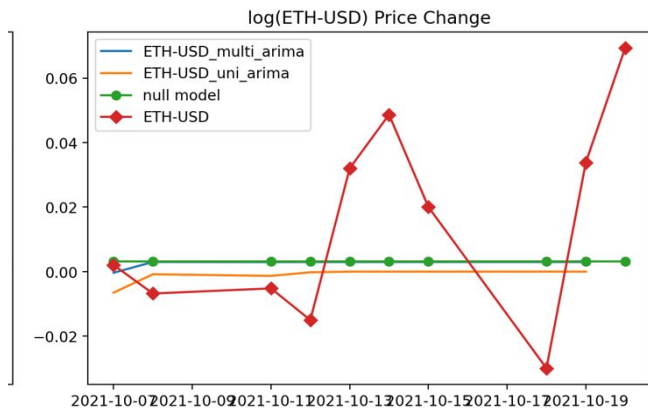
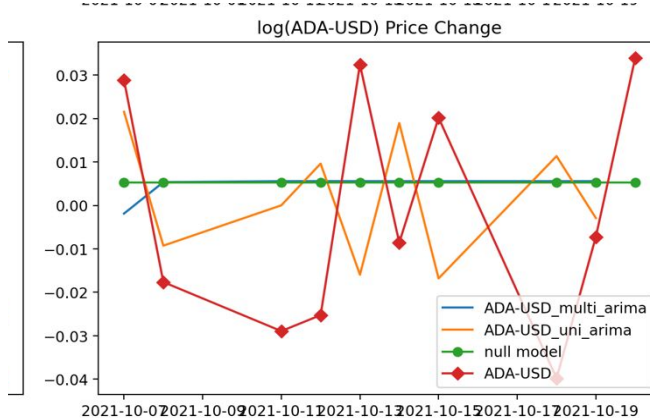
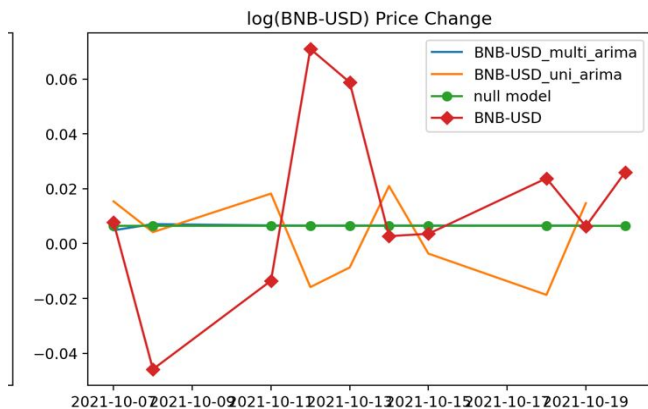
- ARIMA
- Vector Autoregression model (VAR)
- 2 Linear models
- Monte Carlo Simulation

Success metric: Akaike Information Criterion (AIC)

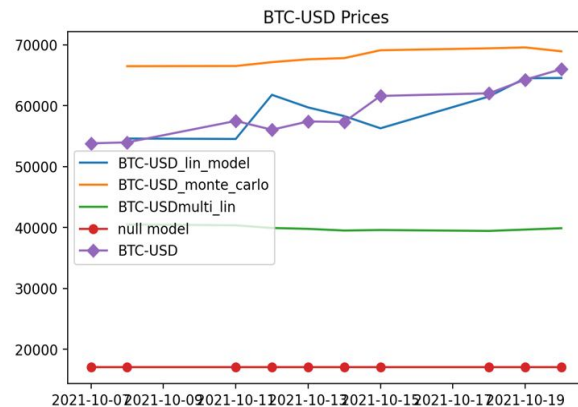
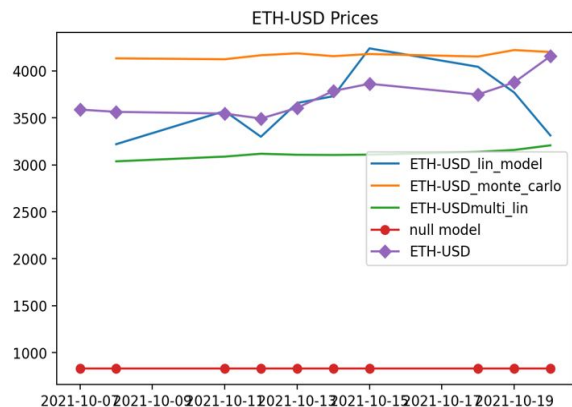
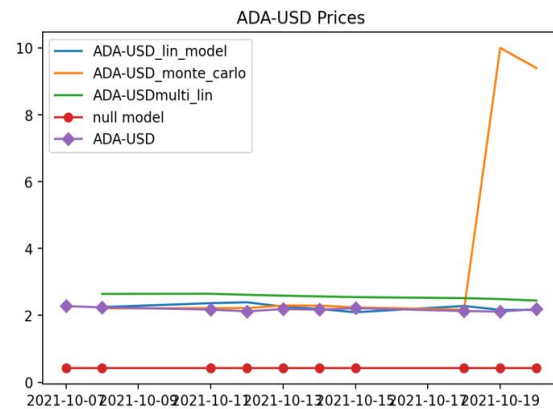
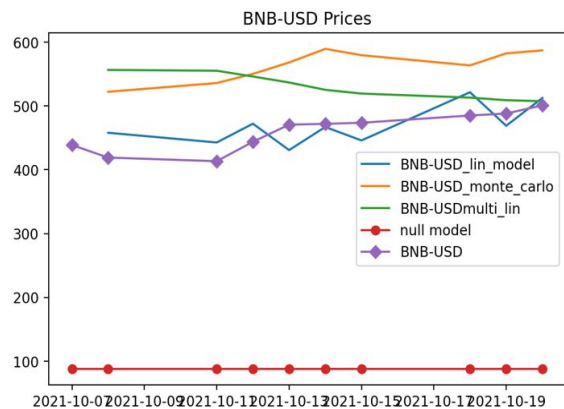
Modeling Results

| Model | Average AIC |
|------------------------|-------------|
| ARIMA | -2400.55 |
| VAR | -67.27 |
| Linear model 1 | 55.56 |
| Linear model 2 | 133.87 |
| Monte Carlo Simulation | 130.59 |

Results



Results



Next Steps

Models for more granular data

Cloud computing

More domain knowledge