

CIND820 (D10)-Big Data Project Capstone

Abstract Report

Title: Price Prediction Analysis of Cryptocurrency

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Choosing which company stocks to invest in can be daunting to anyone, especially to amateur investors who do not have the tools or time to go over daily market opening and closing values or the company information that could affect the values of their stocks. Similarly, it can be just as confusing, if not more, to choose the right cryptocurrency project to invest in.

Cryptocurrencies are virtual currencies that are susceptible to a relatively more volatile market.

This project will explore price prediction based on the extreme volatility of six different cryptocurrencies using historical price market data for each currency. According to *Investopedia*, there are currently over 6500 cryptocurrencies--and I will make use of Exploratory data analysis and Predictive machine learning model to forecast market prices of: *Bitcoin*(BTC), *Ethereum* (ETH), *Cardano*(ADA), *Litecoin*(LTC), *Binance Coin* (BNB), *Dogecoin*(DOGE) because these are what I believe are a few more popular projects in the news and social media.

The dataset I chose is *Cryptocurrency Historical Prices* obtained from *Kaggle*. The dataset from Kaggle includes files for twenty-three individual cryptocurrencies, however, for my project, I customized one csv file with only six out of the twenty-three of the original dataset to better fit my analysis.

With this project, I want to first perform Predictive analytics, specifically Time-Series Analysis on the historical market data of the cryptocurrencies to forecast the prices sixty days into the future and compare them to the actual prices and see if the predictions were approximately correct. And next, I want to perform exploratory analysis on the trends and make recommendations for the investors based on: (1) future trends of each currency and (2) comparisons between all the currencies. The goal is to identify which cryptocurrency project has the most potential in gaining the highest return on investment.