

Cryptocurrency Trading Bot

Student Name: Ahmed Galal Hassan Ahmed RAMZY

Supervisor Name: Dr. Ray C. C. CHEUNG

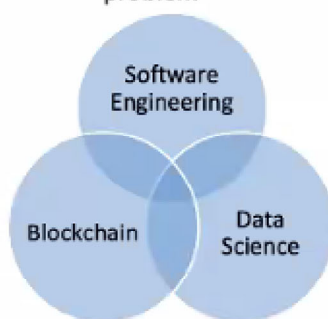
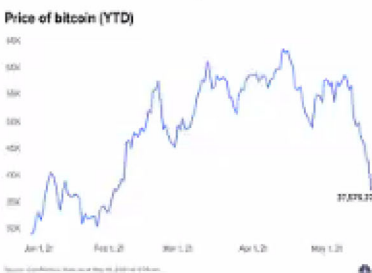
Objectives

- Build a software platform that is able to fetch and analyze data and place trades.
- Build a machine learning model based on LSTM-NN and NLP to analyze the data and predict the future movement of price.
- Build a trading strategy based on the ML model to trade and make profit.
- The main purpose of this project is to learn about different technologies and apply my knowledge from CityU to investigate a real-world problem.

Problem & Approach

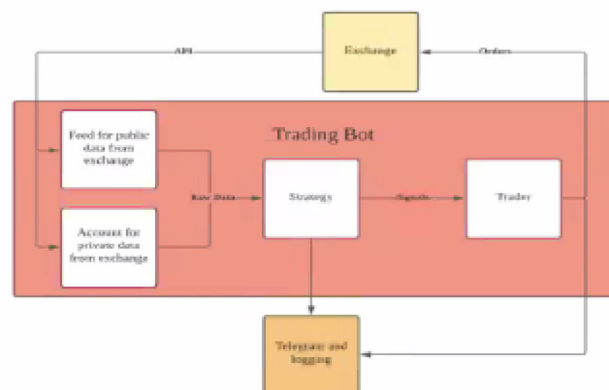
Problem: Bitcoin price prediction amid high volatility

Approach: Using the latest technologies to investigate the problem

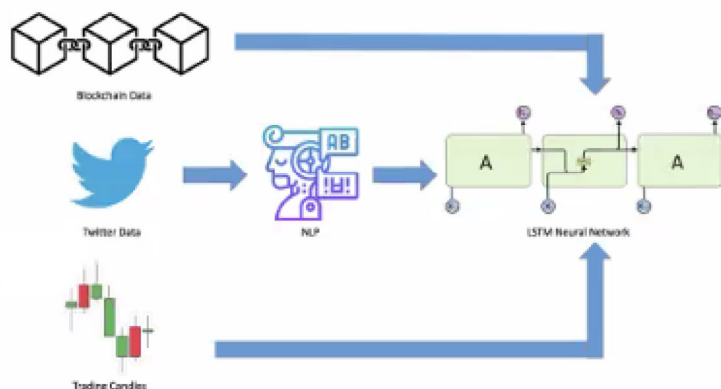


Methodology

Software Overview

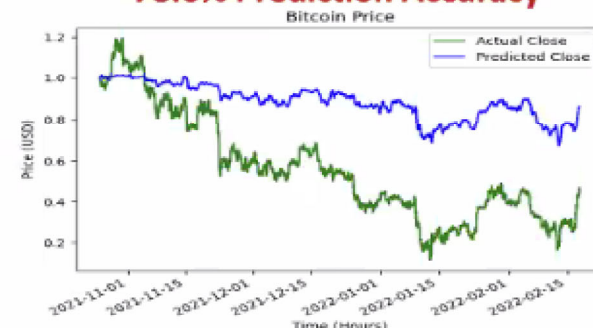


Machine Learning Model

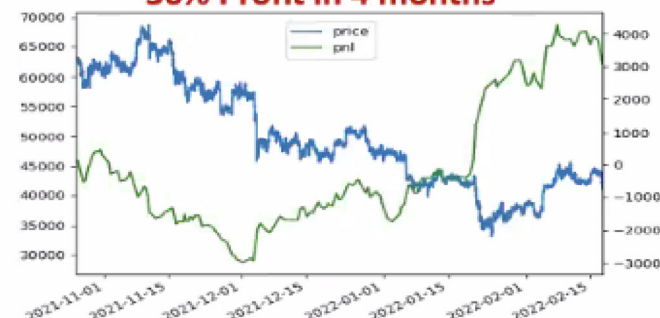


Results

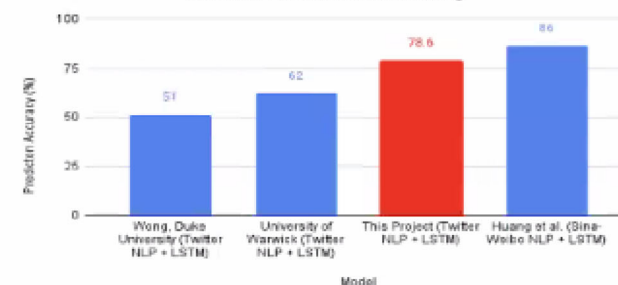
78.6% Prediction Accuracy



30% Profit in 4 months



The best English-based ML model
Models Prediction Accuracy



The top chart uses Chinese social media which covers a lot of Chinese investors and institutions. This is not available in English. I plan to use this in future works.