

SWADHEENTA x HACKINFINITY'23.

DeepMinds

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TOPIC.

MACHINE LEARNING ALGORITHM TO PREDICT STOCK PRICES BASED ON HISTORICAL FINANCIAL DATA.

PROJECT DESCRIPTION

The project involves training an RNN model on historical stock price data to predict the price of the stock on the just next timestamp, after a small time interval and then after a relatively long time interval. We then deploy our model to predict stock price using live stock price data on a website which gives predictions on demand. As it was not feasible to obtain stock price data, we used Bitcoin price data as a substitute to train the model.

WORK DONE TILL NOW

We have made a functioning dummy website which predicts the Bitcoin price for the just next timestamp.

We have used TensorFlow for training the model and StreamLit to deploy our solution hosted locally.

We have pushed the code to our GitHub Repo.

We have laid out the plan for the further milestones to be achieved:

- 1) Improve the UI
- 2) Generate predictions for different time intervals
- 3) Improve the model to generate more accurate predictions

REFERENCES:

- Binance Documentation (for data)
- TensorFlow Documentation (for RNN)
- Psycopg2 Documentation (connect DB to python script)
- Python Documentation (for asyncio)