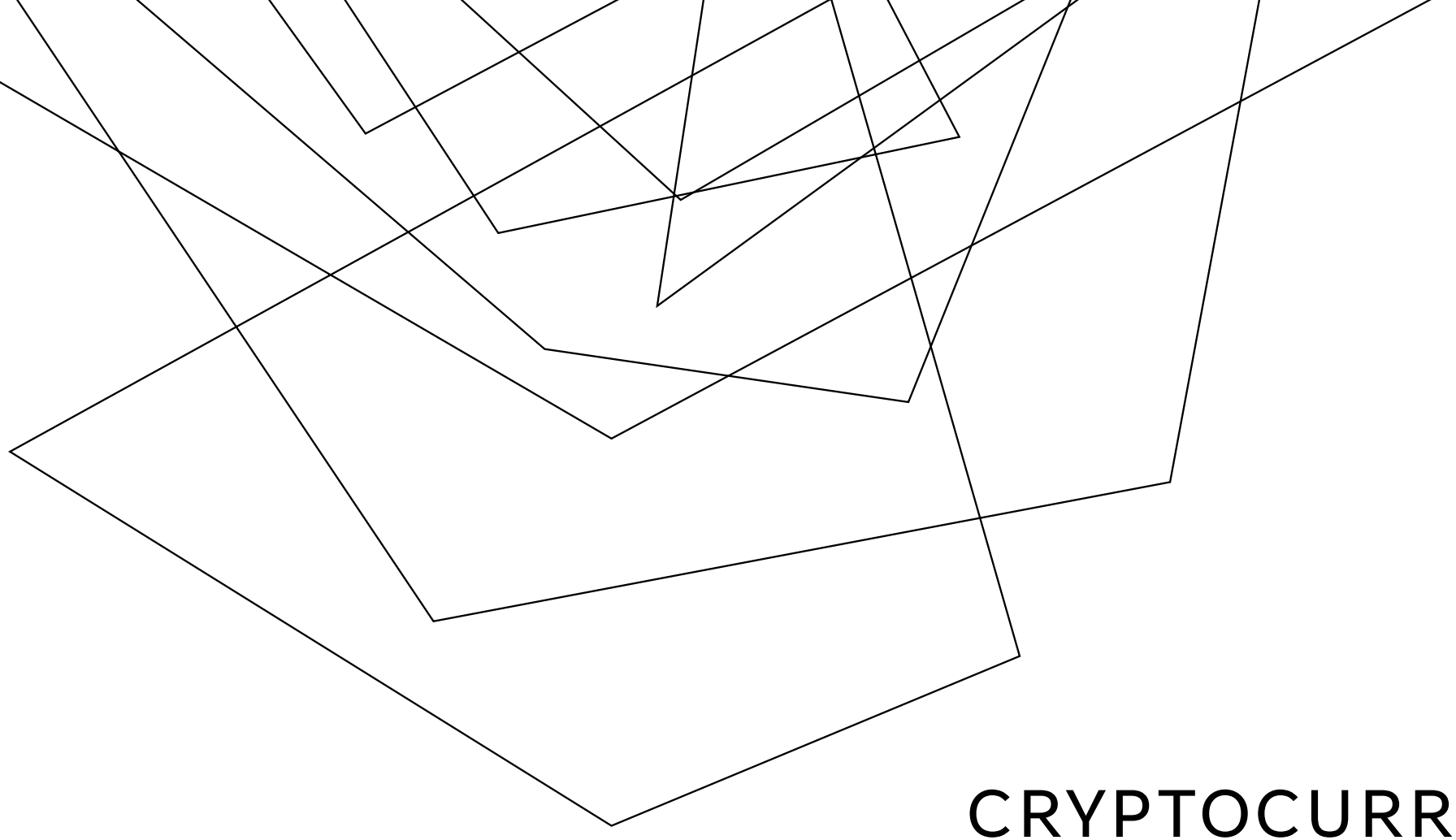


CRYPTOCURRENCIES PRICE PREDICTION

KRYSTIAN STASICA

PROJECT OVERVIEW

DATABASE

Online Yahoo/Naver /Stooq

LANGUAGE

Python

GOAL

Predict price of common cryptocurrency in most accurate way

CRYPTOCURRENCIES

Bitcoin, Litecoin, Ethereum, Dogecoin

USED LIBRARIES

TensorFlow

Key library for this project, open source, machine learning

Pandas (with dataReader)

Data analysis and manipulation tool, open source

Matplotlib / Dash / Plotly

Animated, interaactive, data visualtization

NumPy

Operation on arrays, matrices and with linear algerbra

DATABASE FORMAT

Date	Open	High	Low	Close	Volume
2021-07-12	34836.75	35014.90	34730.15	34996.18	344606907
2021-07-09	34457.51	34893.72	34457.51	34870.16	340542786
2021-07-08	34569.01	34569.01	34145.59	34421.93	374853414

DATE	Date of the trading period
LOW	Lowest price during the trading period
OPEN	Price at the beginning of the trading period
CLOSE	Price at end of the trading period
HIGH	Highest price during the trading period
VOLUME	Total ammount of traing activity during the period

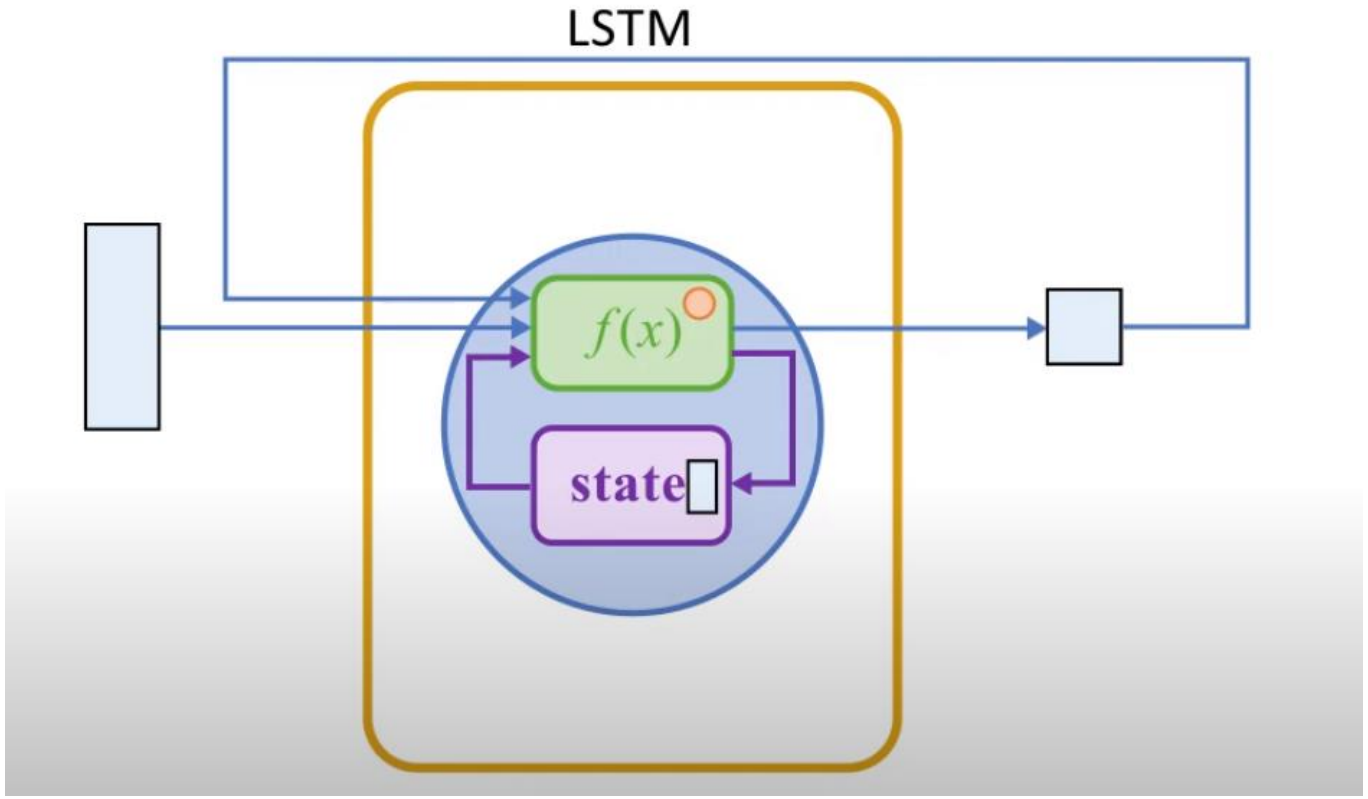
LSTM MODEL

Long short-term memory

RNN - Recurrent neural network

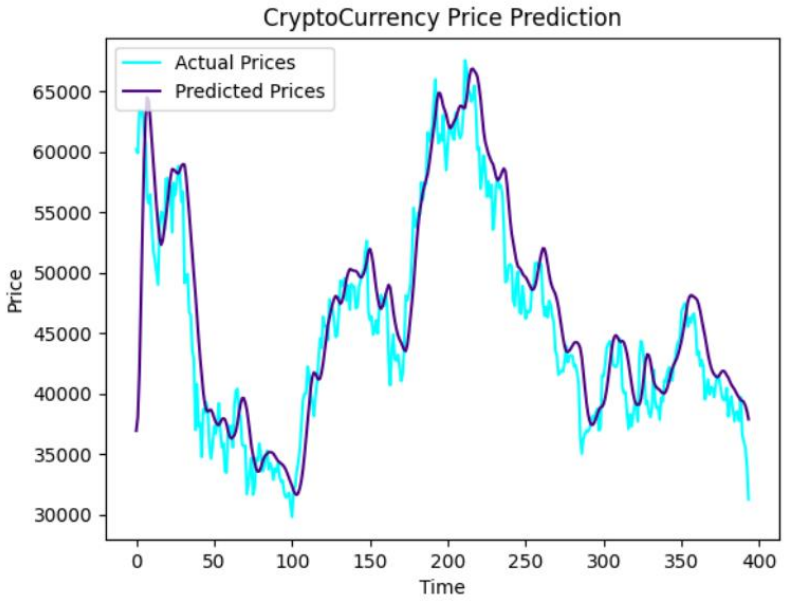
Long term dependency problem

LSTM MODEL

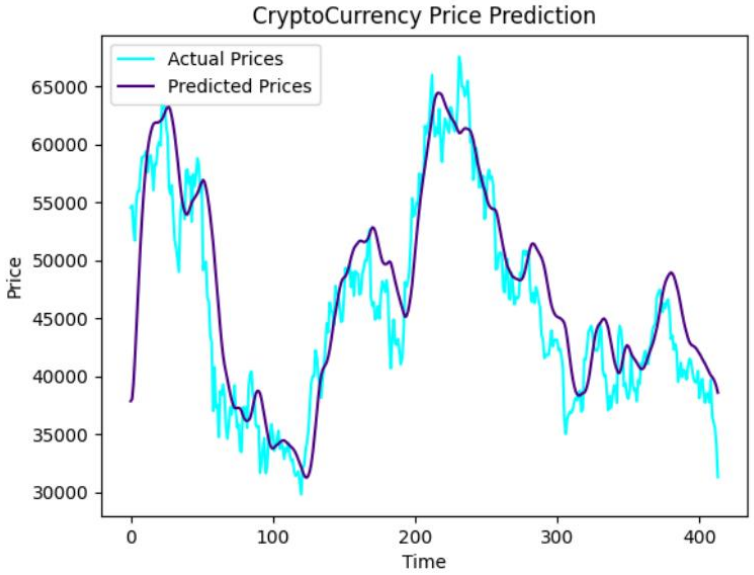


EXAMPLE CHARTS BTC/USD

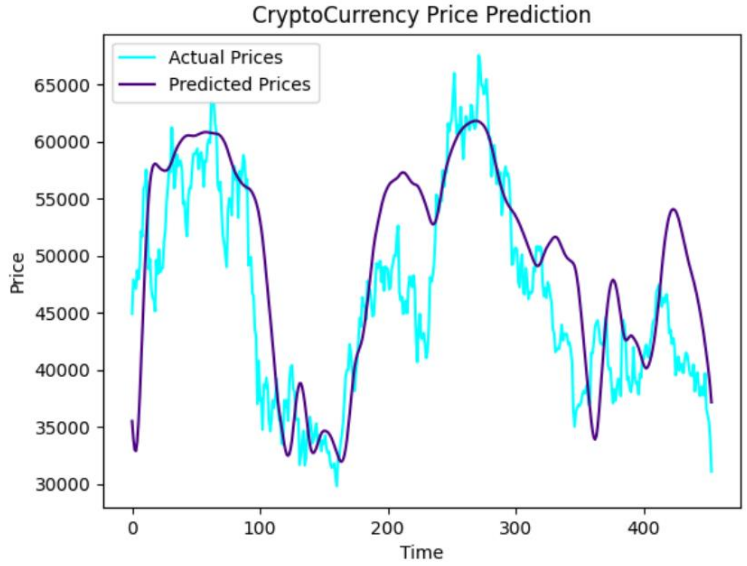
20 DAYS



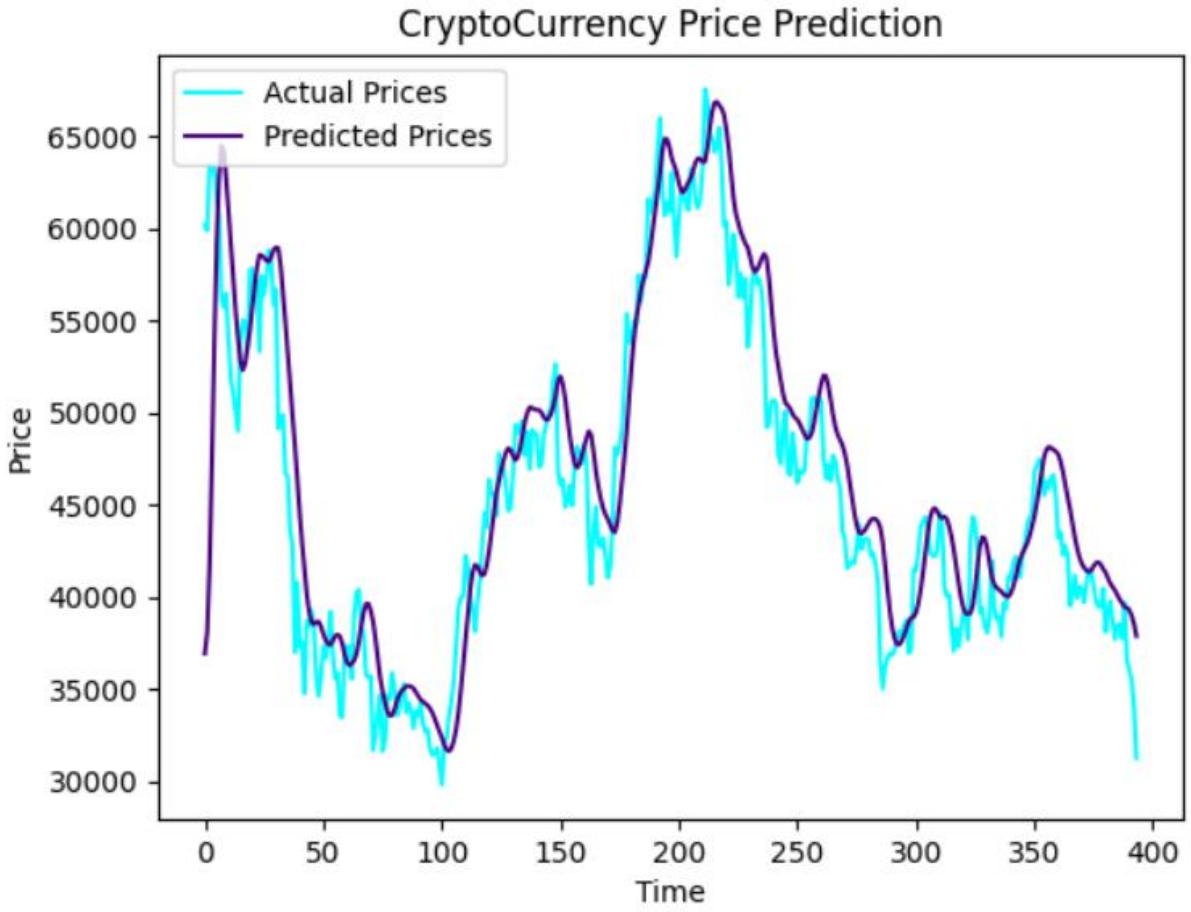
40 DAYS + 20



80 DAYS + 40

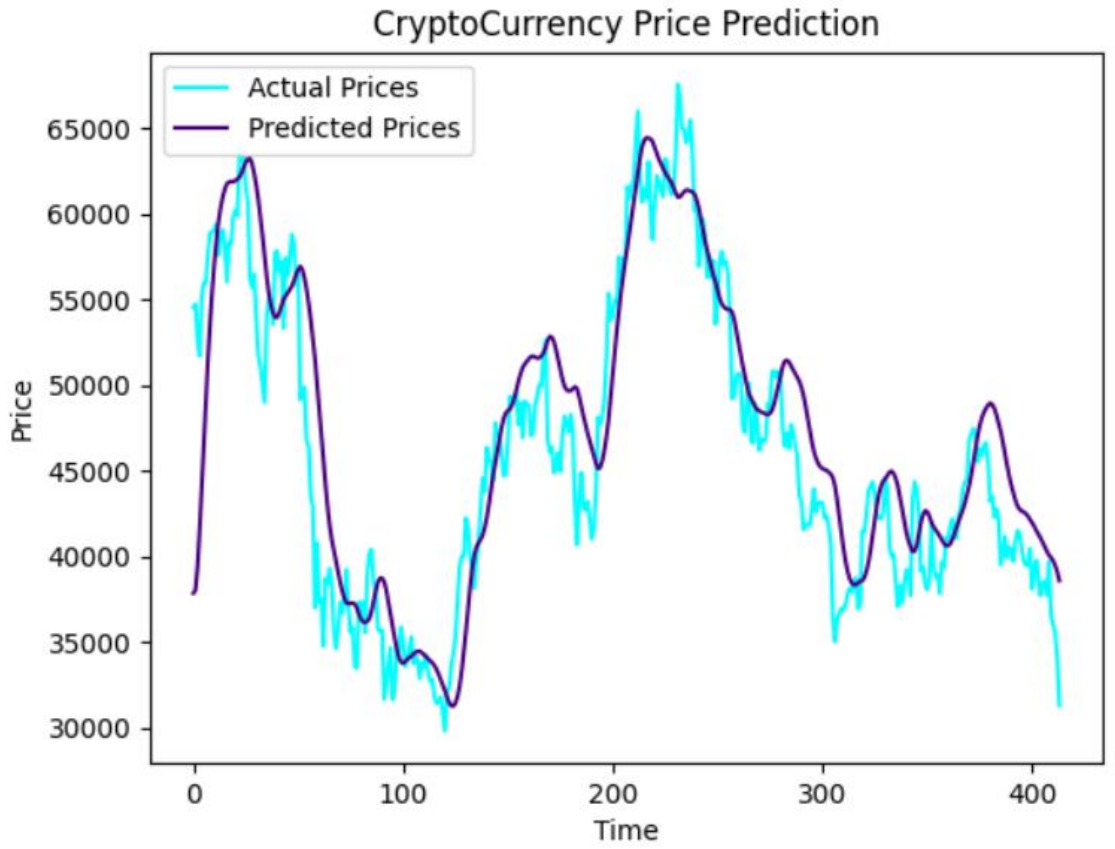


EXAMPLE CHARTS BTC/USD



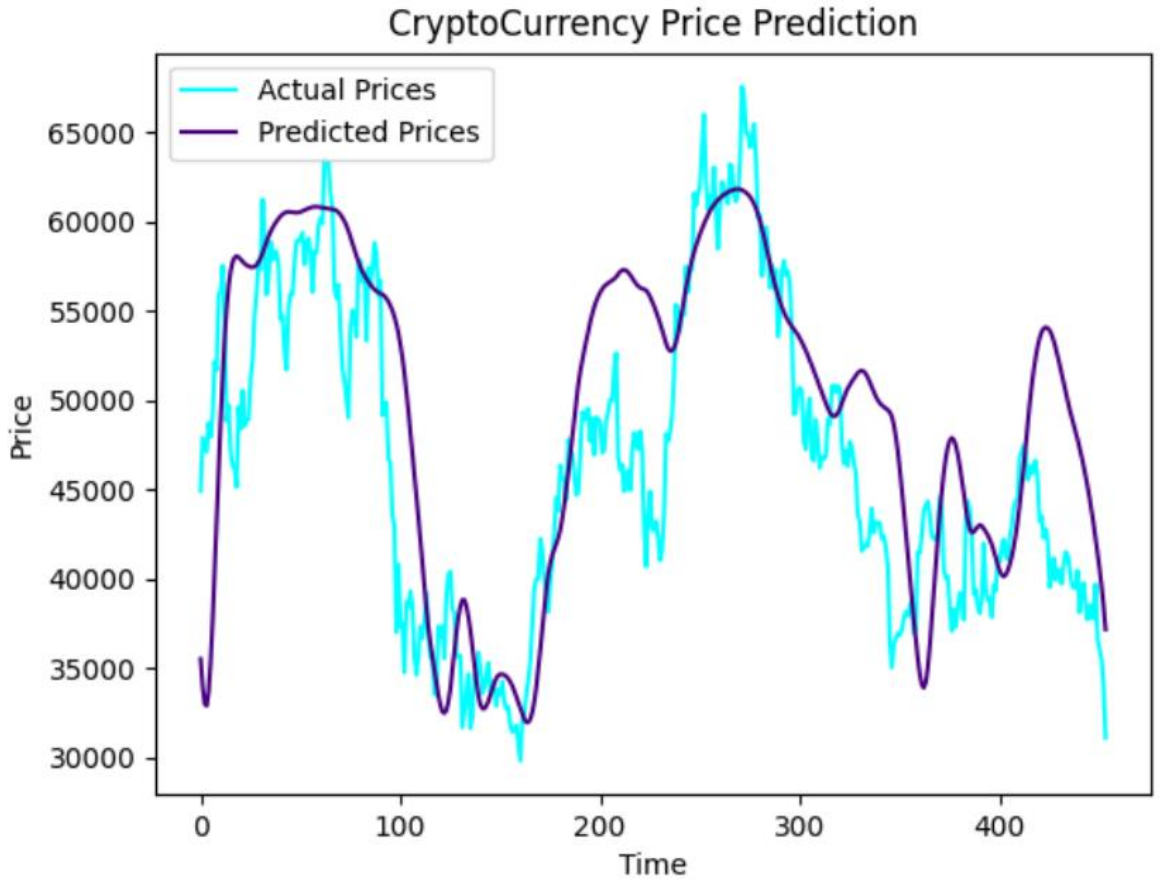
20 DAYS

EXAMPLE CHARTS BTC/USD



40 DAYS + 20

EXAMPLE CHARTS BTC/USD



80 DAYS + 40

SUMMARY

The topic of the project is cryptocurrency price prediction.

It is an interesting topic and there are many methods. I use the most popular libraries.

Changing a few parameters gives visible changes, I need more time to refine the model and enlarge the database.