

Homework 3

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I downloaded the data of Google's stock price from Yahoo Finance and split them into ten small csv files with each containing 30 days' stock price. All of them are in the ./Dataset/ folder. I also store the rest of the data in a file called GOOG_else.

When the size of the file is small, the relative error is also small, which means that my model works well on predicting the next day's stock price. However, when the file becomes larger, the performance is not good enough. I believe it is because the stock price is not related to the price of one year ago.

GOOG_0.csv

The prediction of N+1 time is 1181.7020126624518 +- 0.27251042498322003

The real value is [1109.5706]

The absolute error is [72.13141266]

The relative error is [0.0650084]

GOOG_1.csv

The prediction of N+1 time is 1156.6836040757914 +- 0.27251042498322003

The real value is [1106.26]

The absolute error is [50.42360408]

The relative error is [0.04558025]

GOOG_2.csv

The prediction of N+1 time is 1054.9995339455618 +- 0.27251042498322003

The real value is [1040.61]

The absolute error is [14.38953395]

The relative error is [0.01382798]

GOOG_3.csv

The prediction of N+1 time is 984.5584799200066 +- 0.27251042498322003

The real value is [987.83]

The absolute error is [3.27152008]

The relative error is [0.00331182]

GOOG_4.csv

The prediction of N+1 time is 918.9556926771289 +- 0.27251042498322003

The real value is [929.57]

The absolute error is [10.61430732]

The relative error is [0.01141851]

GOOG_5.csv

The prediction of N+1 time is 985.7950287152199 +- 0.27251042498322003

The real value is [970.89]

The absolute error is [14.90502872]

The relative error is [0.01535192]

GOOG_6.csv

The prediction of N+1 time is 972.417264552241 +- 0.27251042498322003

The real value is [976.57]

The absolute error is [4.15273545]

The relative error is [0.00425237]

GOOG_7.csv

The prediction of N+1 time is 852.8944676564302 +- 0.27251042498322003

The real value is [862.76]

The absolute error is [9.86553234]

The relative error is [0.01143485]

GOOG_8.csv

The prediction of N+1 time is 848.8324670107648 +- 0.27251042498322003

The real value is [843.25]

The absolute error is [5.58246701]

The relative error is [0.00662018]

GOOG_9.csv

The prediction of N+1 time is 843.2523224259254 +- 0.27251042498322003

The real value is [832.15]

The absolute error is [11.10232243]

The relative error is [0.01334173]

GOOG_else.csv

The prediction of N+1 time is 821.8633691198933 +- 0.09540166350007427

The real value is [795.37]

The absolute error is [26.49336912]

The relative error is [0.03330949]