

ML Nanodegree Capstone Project

Investment and Trading application

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Part I

Definition

Project overview

Check the rubric! This is not a final layout of sections!

Problem statement

We want to predict the price of EURUSD ratio and NASDAQ stock. This is a time-series forecasting problem. The goal is to create a script that will forecast future values basing on input provided as starting point. Then a web application will serve forecasts live by downloading information from third party services.

Evaluation metrics

MSE between predicted y and actual values \hat{y} :

$$MSE = \frac{1}{2} (y - \hat{y})^2 \quad (1)$$

Model loss will be calculated from validation set that will be less or equal 20% of the actual values that a model tried to predict from a starting point. This means that up to 40% tail of the dataset is reserved only for evaluation during training and will not be fed as input. For final model testing the actual values from validation set will be included as input to predict test actual values.

Part II

Benchmark model

1 Design

2 Optimization

Part III

Data

3 Overview

4 Preprocessing

5 Feeding issue

Part IV

Model

6 Overview

Part V

Conclusion

7 Results

8 Further improvements