

PROGRAMMING EXERCISE

Introduction

Thank you for doing our programming exercise. The task at hand is to considering the data [here](#), come up with a set of rules to maximize the trading performance.

Tasks

The file at <https://ortex-static-files.s3.eu-west-2.amazonaws.com/SignalsQuantProgrammingExercise.csv> is the output of an alpha signal generator. The file contains 6 columns.

date	Date when the signal triggered, yyyy-mm-dd
ticker	The ticker identifying the stock
signal_return	The percentage profit at the recommended holding day
rec_holding_days	The number of trading days recommended to the position.
Buy	true if the signal suggests to buy, false if sell short.
significance	The signal generators expected significance of the signal

Considering all but signal_return, we want you to come up with a set of rules or a ML model to maximize the trading performance.

The code should work out a way to select the best trades and how much of your capital should be invested in any trade.

Considerations:

You should only consider buy trades.

Trades should be closed 'rec_holding_days' trade days after the 'date'.

Only trades that are closed on or before the 31st of December 2020 should be considered.

For the purpose of this exercise, Monday-Friday can be considered trading days.

For the purpose of visualizing and weighting, the starting capital is \$100 000.

Output:

A well-formatted, labelled chart showing performance over time, including cash in bank and cash invested.

A percentage increase over time.

A runnable, trained model that can be tested against an unseen dataset.