

ML Approach Strategy

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1 Introduction

The strategy is based on linear regression. It fits linear model on past data and predicts the normalized growth.

Normalized growth indicates with what probability, the stock will move up next day.(or move down)

We buy and sell if that probability is greater than particular threshold. The time frame for this strategy is **5 Min**.

2 Buy & Sell

I have uploaded '.pickle' files for model fitting. You need to import that file, fit in the data for particular timestamp.

(For example, at 9:25, you add Open, High, Low, Close (Close at 9:25) and it will tell you normalized growth value.)

If that value is α_{time} , and closing prices are denoted by C_{time} , then

if $\alpha_{time} > threshold$ & $C_{time} < C_{previoustime}$ then BUY

if $\alpha_{time} > 1 - threshold$ & $C_{time} > C_{previoustime}$ then SELL

3 What is expected to obtain?

You need to output following things for all stocks:

- Buy & Sell Timestamps
- Buy & Sell Prices