Trading Research/Strategy

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Problem

FINANCIAL MARKETS ARE VERY RISKY

MOST TRADERS WANT TO LIMIT MARKET RISK

DAY TRADING REQUIRES AN ACCOUNT BALANCE OF $25,000

Strategy

- Buy right before market closes and sell right when the market opens
- Limits market risk
- Doesn't break Day trading rules

Tools used

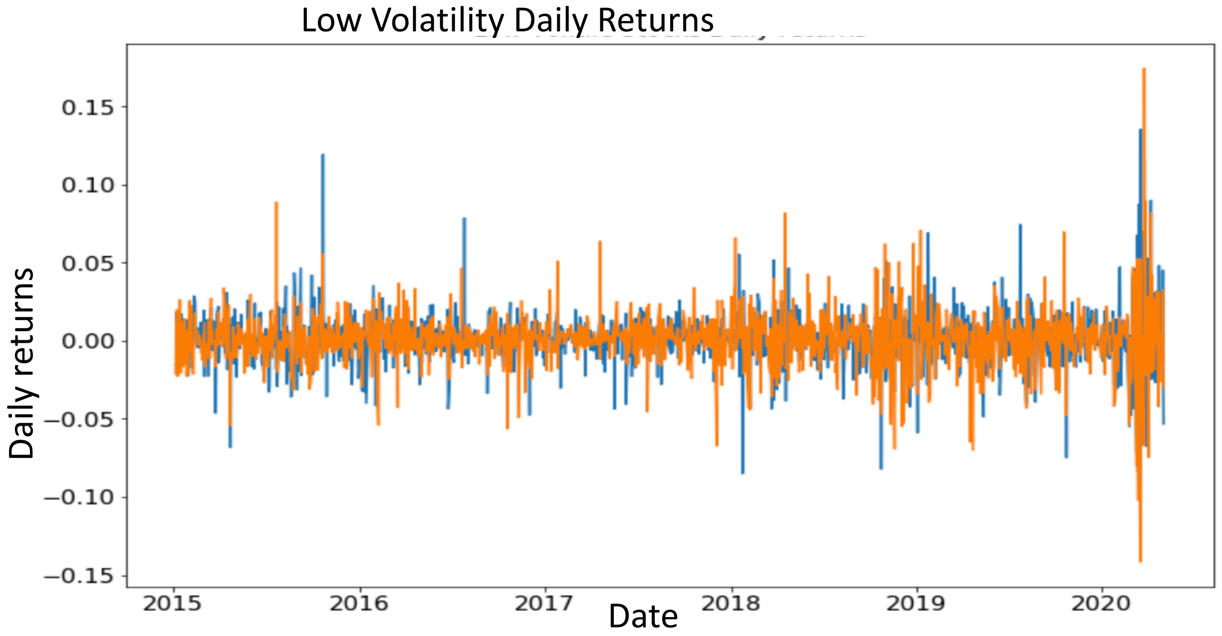
- Python
- Statsmodels
- Pandas
- Numpy
- yfinance

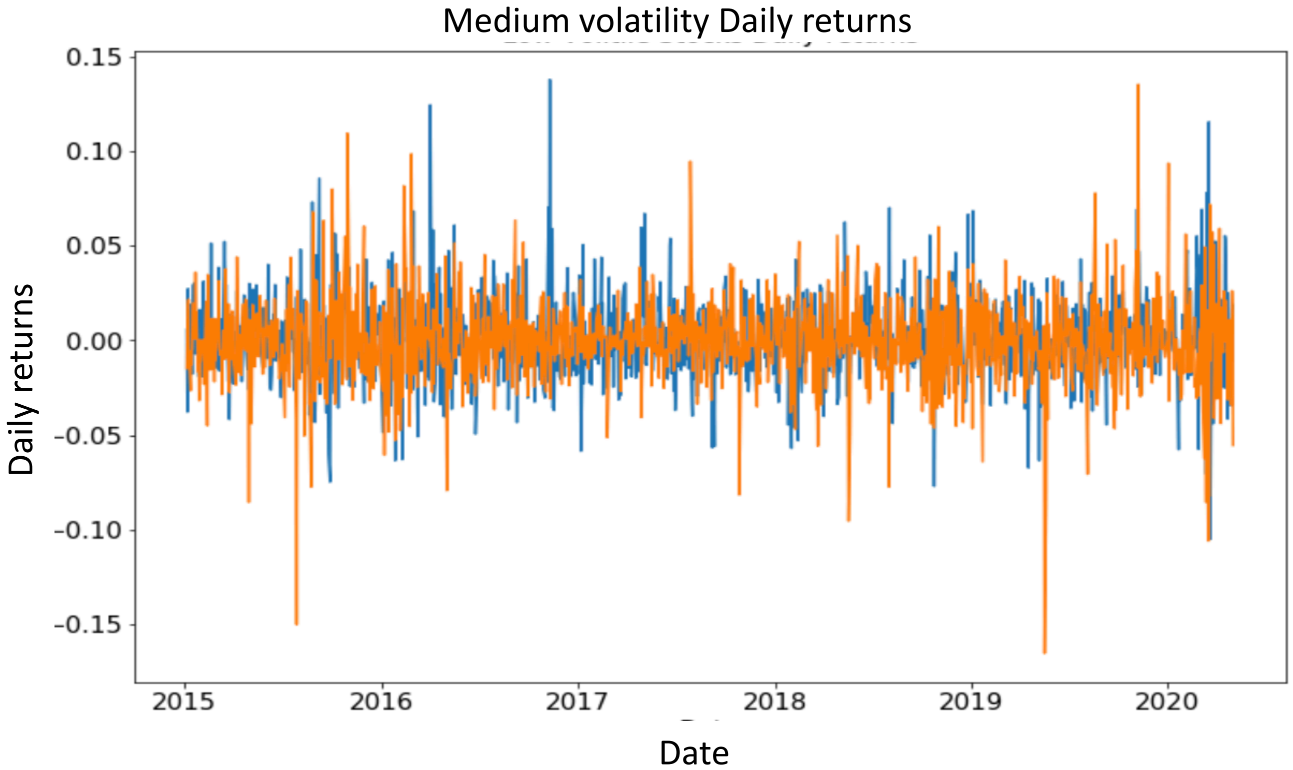
Workflow

- Initial EDA
- Baseline Modeling
- Tuning my model

Initial EDA

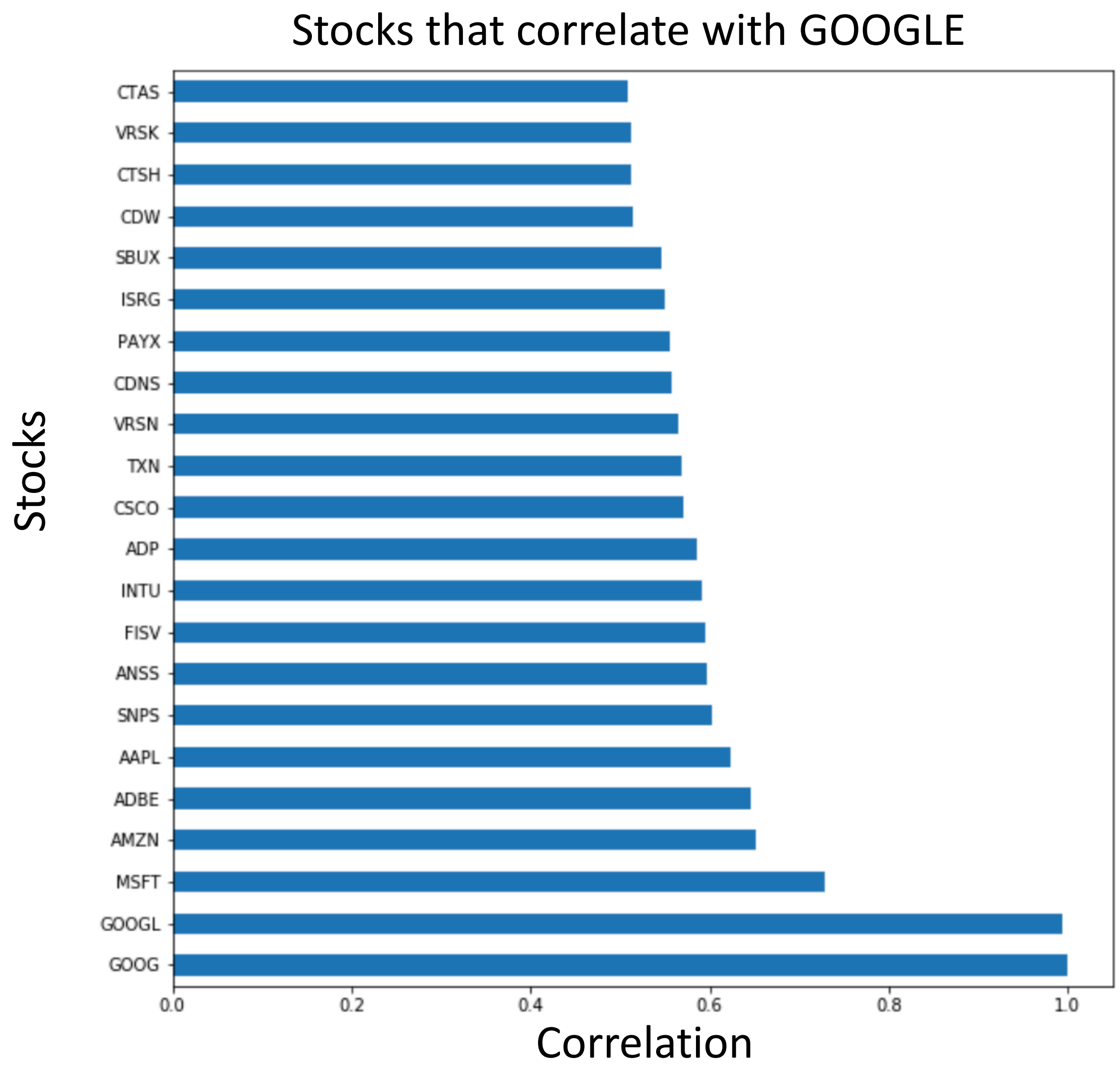
- Created groups based on volatility.
- Why is it useful?





Initial EDA continued

- Correlation analysis
- Why is it useful?



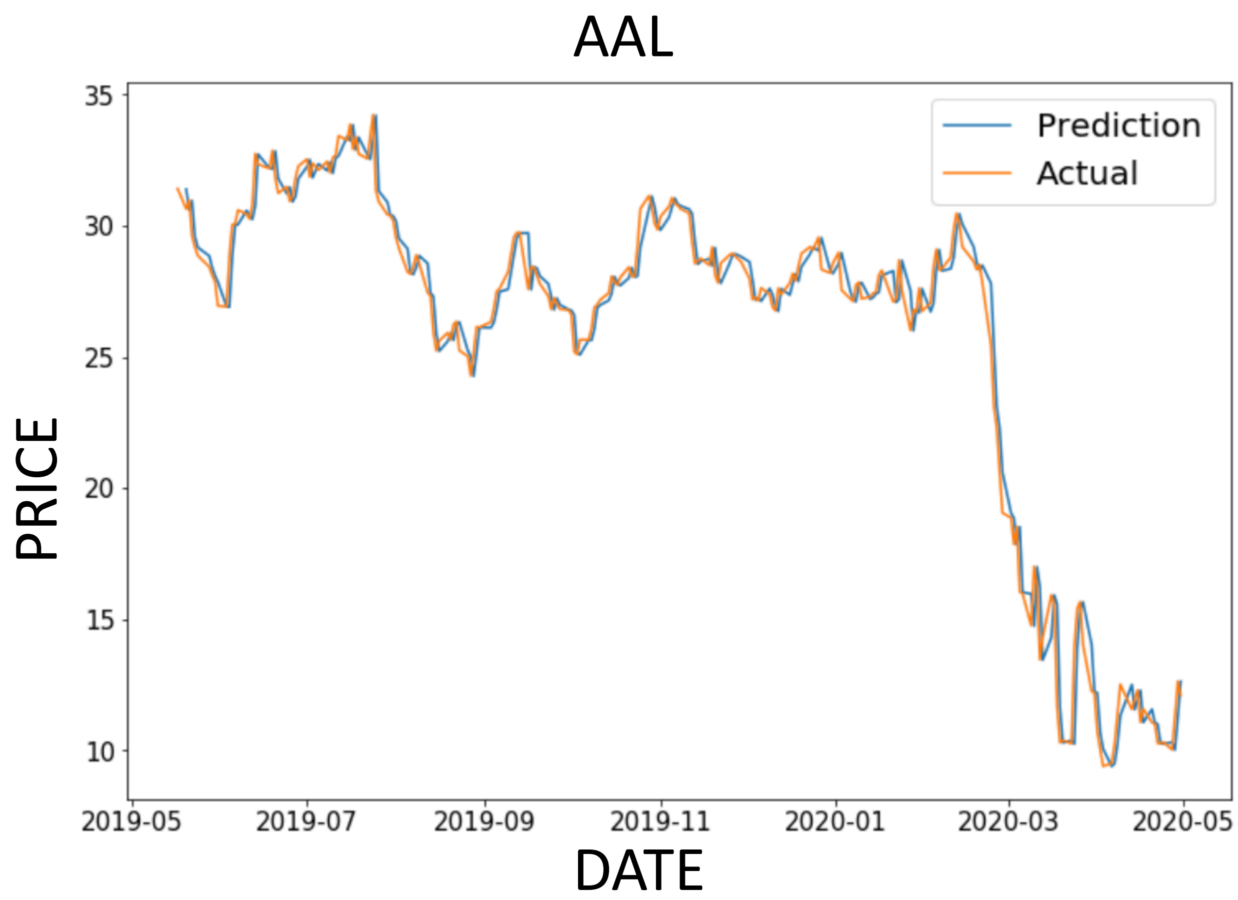
Baseline Models

SARIMA Models

Main goal?

Baseline Model

- Baseline AAL model
- RMSE 89 cents



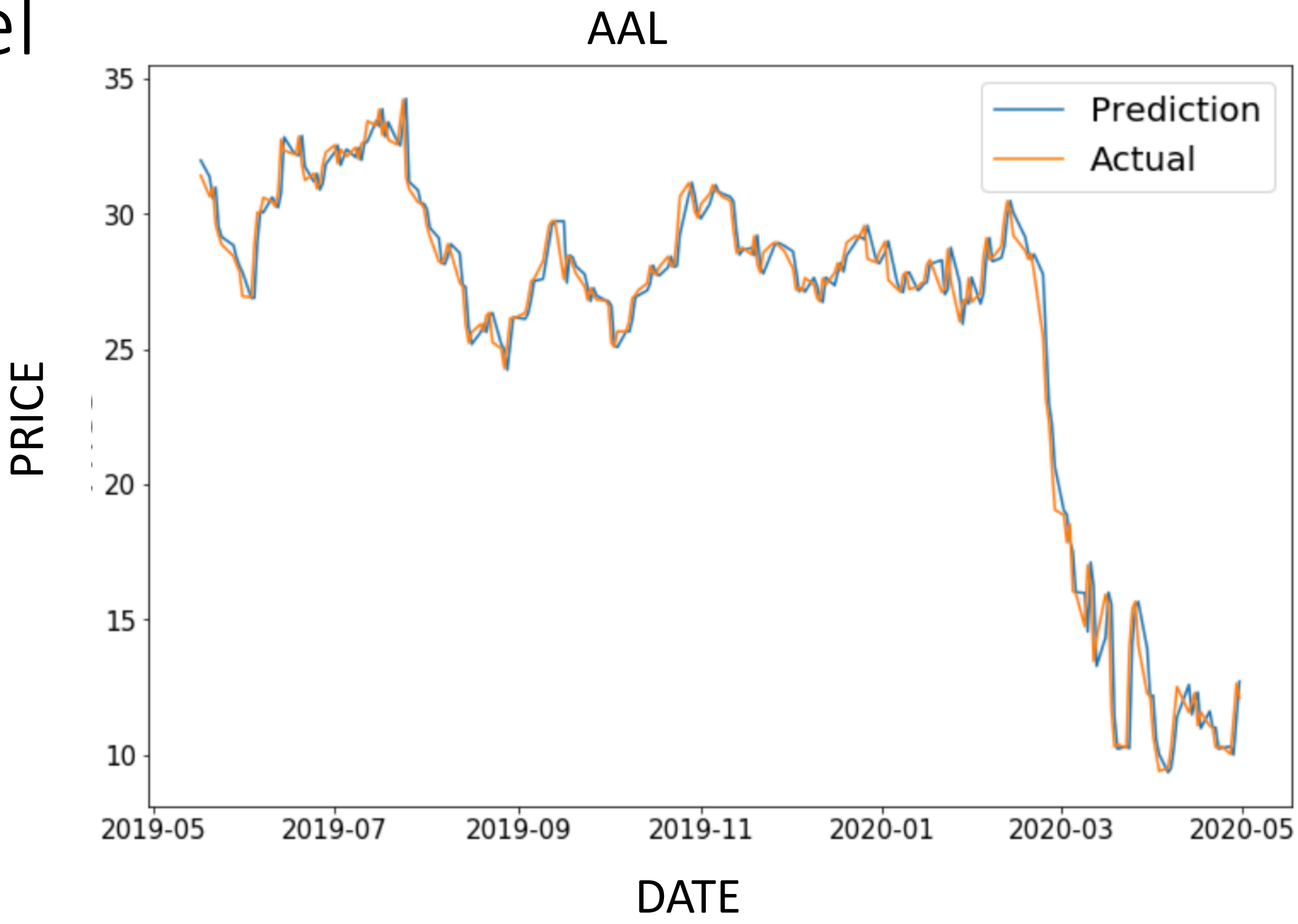
Tuning my models

Parameters for SARIMA

Using grid search for each stock

Tuned Model

- Tuned AAL model
- RMSE 83 cents



Conclusion

WHAT WE LEARNED

TRADING RESEARCH RECAP

Future work

- Alternative methods for lower RMSE?
- Correlation Analysis
- Volatility Analysis

Thank you

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