Project 3 Machine Learning Algorithmic Trading

FinTech Butlers

Malika Ajmera Matt Glasgow Mike Nguyen Michelle Silver Luis Torres

ML Algorithmic Trading Project

Objective: Build predictive models using machine learning algorithms for buy-sell decision making of individual stocks



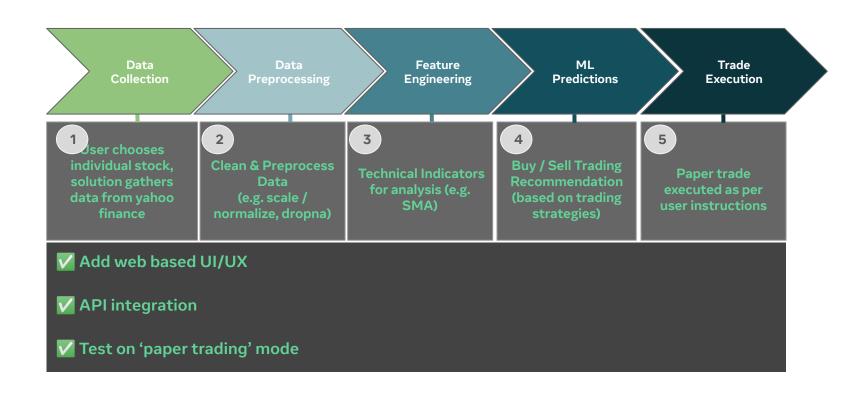
Why?

 Help develop profitable trading strategies based on Machine Learning model predictions

• How?

 Leveraging historical stock data from yfinance, technical analysis methods and a trained Machine Learning model

SOLUTION OVERVIEW



Solution Demo

Assumptions

- Post Portfolio optimization
- Pre-selected list of stocks for trading
- No fees for Alpacas 'paper trading'
- No consideration of after market price fluctuations

Future Research

- Link to Portfolio optimization solution
- Test on other asset classes, stocks and sectors
- Incorporate LSTM for target price based decision making

Future Releases

- Deploy to the cloud to run virtually
- Integrate Chatbot functionality
- Technical indicator optimization
- Fully automated algo-trading bot with profit and after market options

- GitHub repo: **P3.ML_Trading**
 - Main Branch:
 - Main Python /Streamlit app
 - Modules used by Main program
 - Resources Folder
 - All other branches are DEV