

Intelligent Portfolio



Who Is Intelligent Portfolio?

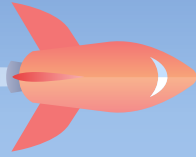
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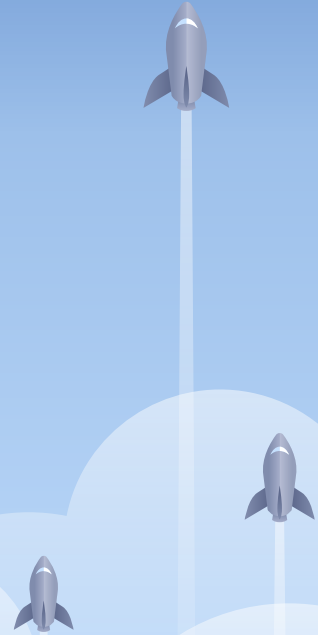




What is Intelligent Portfolio?

What we are:

Intelligent Portfolio is a web based stock portfolio application that allows users to build and monitor their portfolios with algorithmic assistance to reduce human error in picking the right stocks to invest in and deciding what action you should take on any individual stock to optimize returns



Technologies Used



Data Collection & Visualization:

- Python
- Quandl
- Pandas
- Numpy
- Seaborn
- Plotly
- Django
- HTML, CSS, Js

Algorithms Available:

- Principal Component Analysis
- Linear Regression
- Logistic Regression
- Q-Learning
- Gaussian Hidden Markov Model
- Simple Moving Average
- Mean Variance Analysis
- Momentum Reversal Strategy

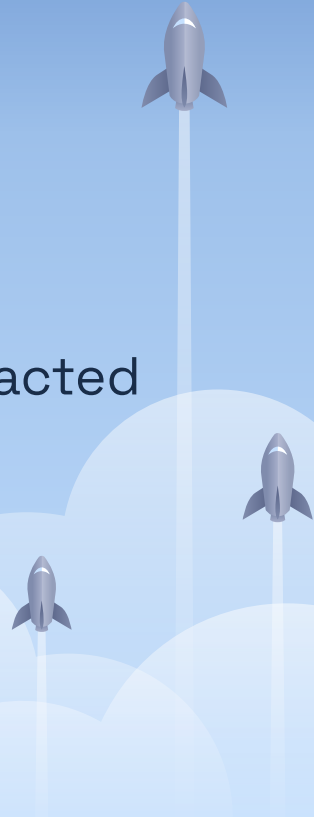
Current State



Current State:

In our current state we are able to:

1. Download historical stock data
2. Combine them into a dataframe
3. Apply pre written algorithms to ticker data extracted from dataframe
4. API connected webapp mvp



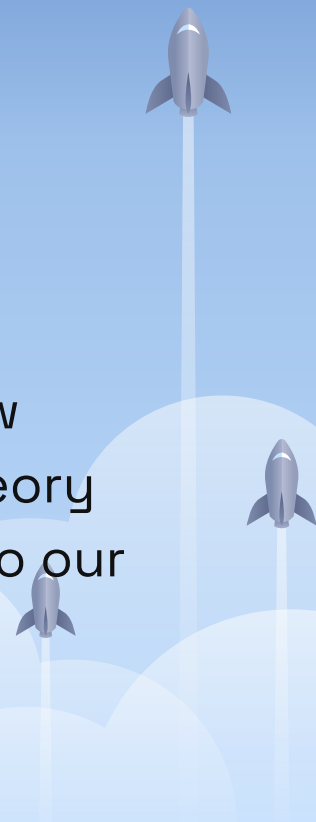
Future State & Vision



Future State:

For the future of our vision we hope to:

1. Combine all current functionality to webapp
2. Add improved stock search engine to webapp
3. Save ML algorithm user results to central db to improve their results
4. Apply TensorBoard to aid in measurements and visualizations for the machine learning workflow
5. Add further formulas from Modern Portfolio Theory
6. Incorporate the 3 main financial statements into our calculations
7. Allow for a complete range of securities to be evaluated



Video of presentation

