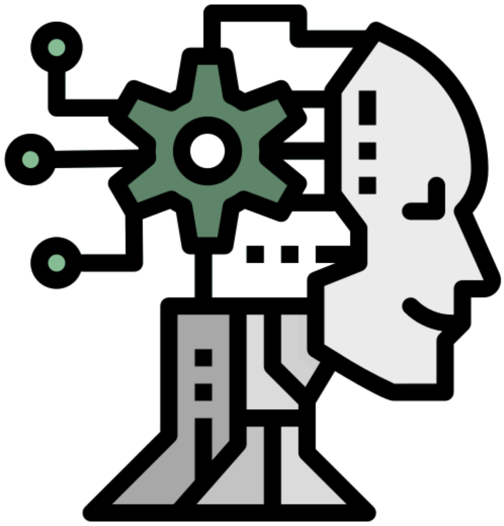
Robo-Advisor

User Guide



Robot icon made by photo3idea studio from Flaticon

Getting Started

System Requirements and Dependencies

- Python or Anaconda, and Python libraries as specified in requirements.txt
- A modern web browser. Recommended Google Chrome version 76 and above.
- GNU Make (https://www.gnu.org/software/make/) to utilise make commands in the repo.

Running Django server

- Robo-advisor system can be started by running the front-end Django server. Start the front-end by typing the following in your Anaconda environment, in the **root directory** of the repo.

  ```
  make front
  ```

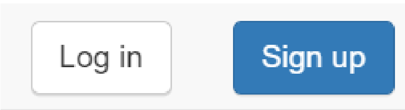
- Alternatively, if 'make' is not installed, then you can type the following:

  ```
  cd /d SystemCode/frontend/smartportfolioWeb/src
  python manage.py runserver
  ```

- Then open Chrome and goto http://127.0.0.1:8000/

Creating a User Account / Logging in to a User Account

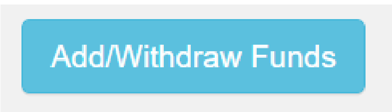
- From the home page, click the “Sign Up” button at the top-right corner, and enter your email address, name and password, then click “Sign Up”

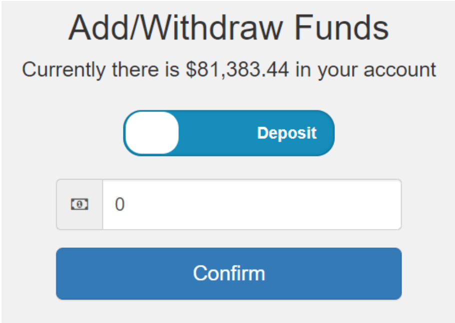
- Alternatively, if you want to see a preset account with existing portfolios, click the “Log in” button and use the following credentials:
  - Email address: bob@hotmail.com
  - Password: password
- You will be redirected to the Portfolio Management page

Add or Withdraw funds

- In order to purchase any portfolios, you will need to have (virtual) funds in your account. You can do so by clicking the “Add/Withdraw funds” button

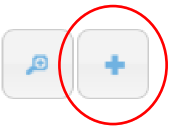
  

- Choose to either deposit or withdraw funds, enter the amount and click “Confirm”.



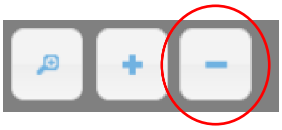
Buying a new Portfolio

- Scroll down the page and you should see a list of **Available Portfolios**. You can sort the portfolios by name, risk, type, returns, etc
- Buy the portfolio that you want by clicking the "+" icon. It will be added to your list of available portfolios



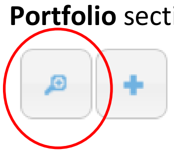
Selling an existing Portfolio

- Scroll the page and you should see a list of **Current Portfolios**. You can see information such as its risk level, cumulative returns over 30 days and 1 year. In addition you can see the amount that you have invested in it, and its current value and earnings.
- Sell the portfolio that you want by clicking the "-" icon.

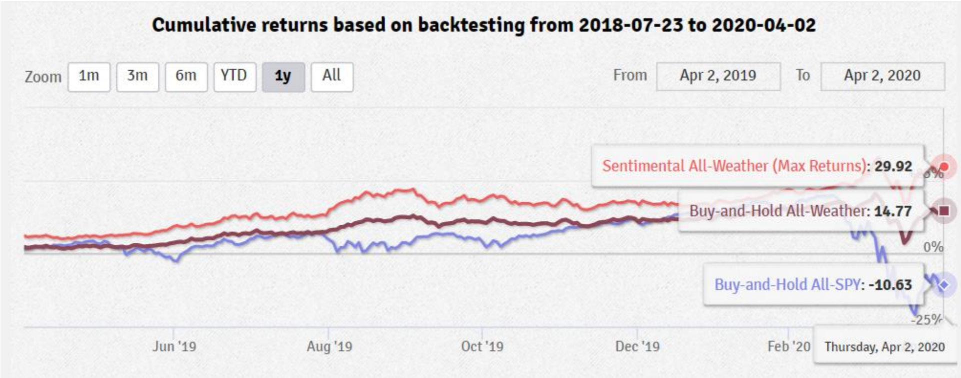


Viewing details of a Portfolio

- You can click the magnifying glass icon in either the **Available Portfolio** section or **Current Portfolio** section, to see the details.



- Backtest results and key performance statistics will be shown. An example for "Sentimental All-Weather (Max Returns) is shown below



Key Performance Statistics

in comparison with relevant benchmarks

	Sentimental All-Weather (Max Returns)			Buy-and-Hold All-SPY			Buy-and-Hold All-Weather		
	1mth	1year	All	1mth	1year	All	1mth	1year	All
Annual return	14.344%	21.549%	16.662%	-85.949%	-12.795%	-6.401%	-51.569%	11.468%	8.45%
Cumulative returns	1.123%	21.549%	29.919%	-15.087%	-12.795%	-10.627%	-5.863%	11.468%	14.771%
Annual volatility	3.908%	12.13%	10.145%	87.948%	29.821%	25.336%	30.292%	10.495%	8.811%
Sharpe ratio	3.44915	1.66977	1.57015	-1.80007	-0.30857	-0.133346	-2.24421	1.08741	0.965032
Calmar ratio	3099.37	1.81241	1.40144	-3.48894	-0.373621	-0.18694	-3.54386	0.815183	0.603644
Stability	0.13529	0.769435	0.916282	0.30439	0.0386772	0.240481	0.0888355	0.757517	0.836462
Max drawdown	-0.005%	-11.889%	-11.889%	-24.635%	-34.245%	-34.241%	-14.552%	-14.068%	-13.998%