

Pirate Trading Platform

Open source automated trading for everyone



“I got a really big team.” - Aubrey Graham







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Pirate Trading Platform is
the first open-source
automated trading
platform.

Using vanilla  code frameworks
and our own algorithms ,
we did what is only really being
done by big banks    



The platform is:

- **Modular** b.y.o. data and algorithms
- **Lightweight** deploy anywhere
- **Extendable** adding new features without hassle



Case Study: Bid-Ask Arbitrage

Automation allows us to take advantage of discrepancies between bid prices and ask prices.



Design Considerations - Buy

Conditions for buying:

- If the bid price is more than the (ask price + threshold), buy.

The threshold can be configured by the user. It exists so that the user can declare a larger bid-ask spread on the fly.



Design Considerations - Sell

Conditions for selling:

- If current price is less than our bought at threshold, sell.
- If the current price is stagnant for N number of observations, sell.
 - *N being a risk appetite supplied to program by user*
- If the current price is descending and cannot recover peak after N number of observations, sell.
 - *N being a risk appetite supplied to program by user*

If these conditions are not met, program will continue to hold stock.

Let's demo.



Improvements and Conclusion

- Expanding selling and hunting algorithms to take into consideration industry health and find volatile stocks.
- Currently the user determines risk appetite and we want to replace that with an automated evaluation of risk appetite.
- Programming optimization for speed & deployment.



Check it out!

Product site:

<http://fordhamcss.me/ptp>

Code:

<http://github.com/fordham-cs/ptp>