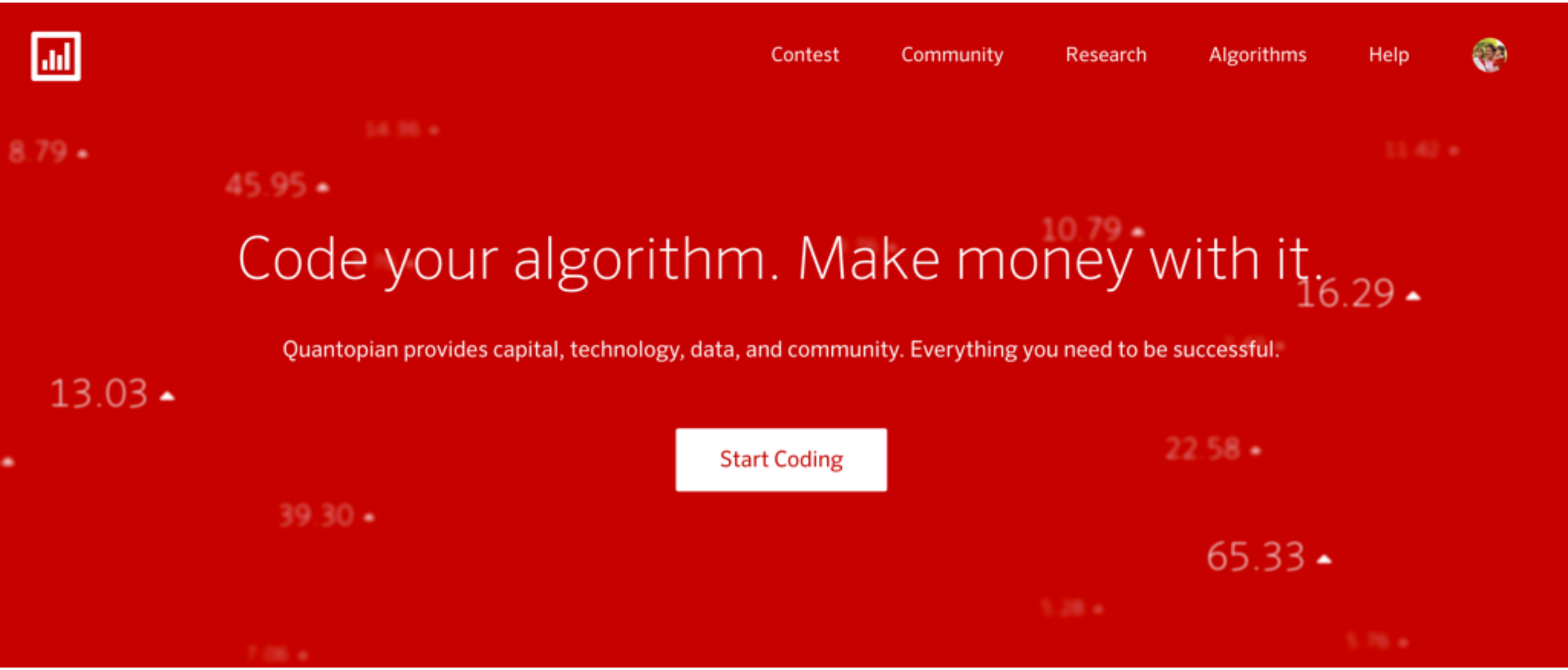


Quantopian

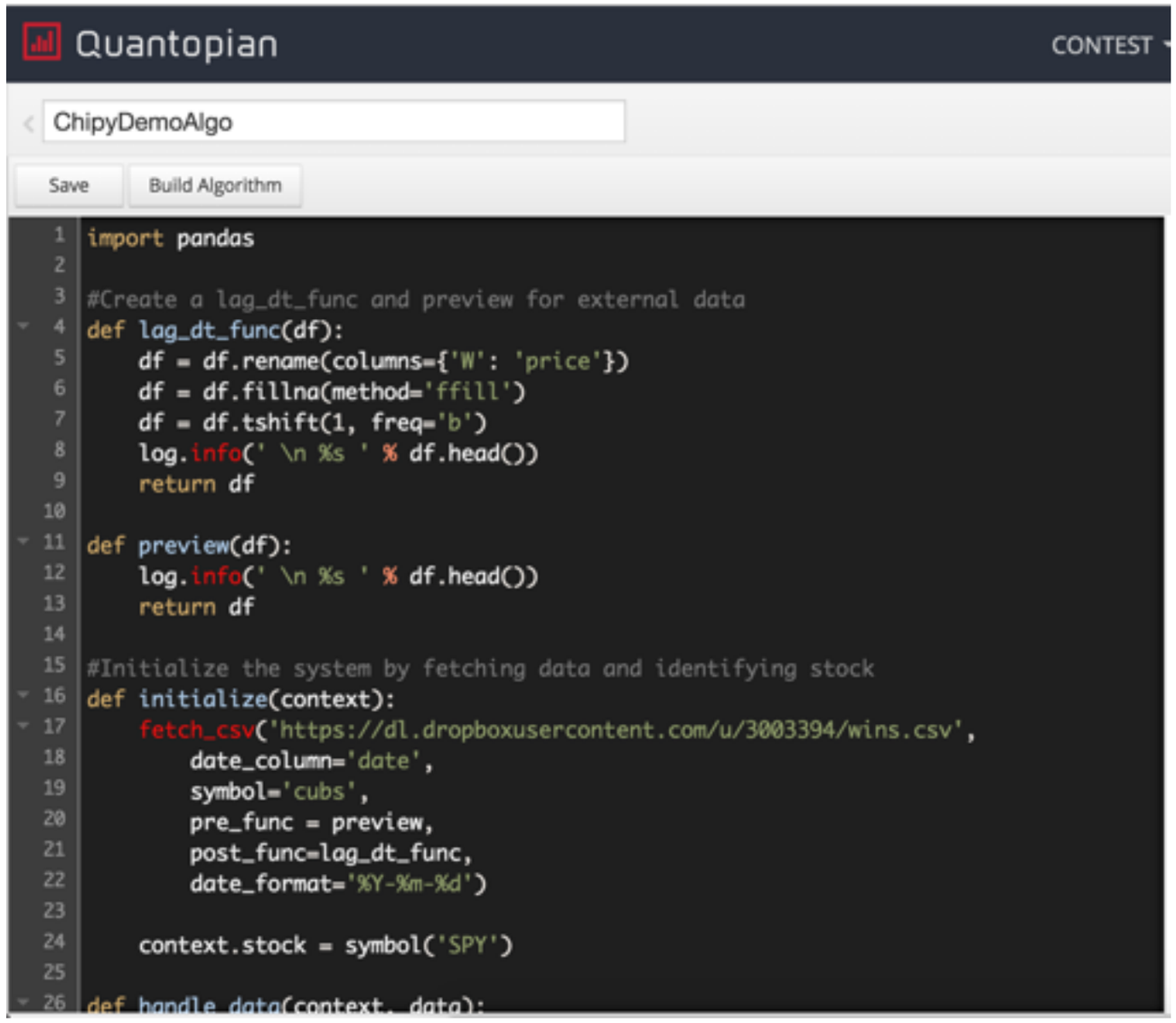
Chipy - September 2015

Setup

- Github: davidkunio/chipy-quantopian
- iPython Notebook
- Quantopian IDE/Backtest: Research backtests

Agenda

- Quantopian Overview
- Quantopian IDE Example
- Backtest Examples



Quantopian is…

- Platform for building investment strategies
- Jupyter based IDE + Custom Backtest Module
- Powered by open-source: Zipline
- Connected to a broker (IB) for live trading
- Surprisingly active forum

Quantopian isn't…

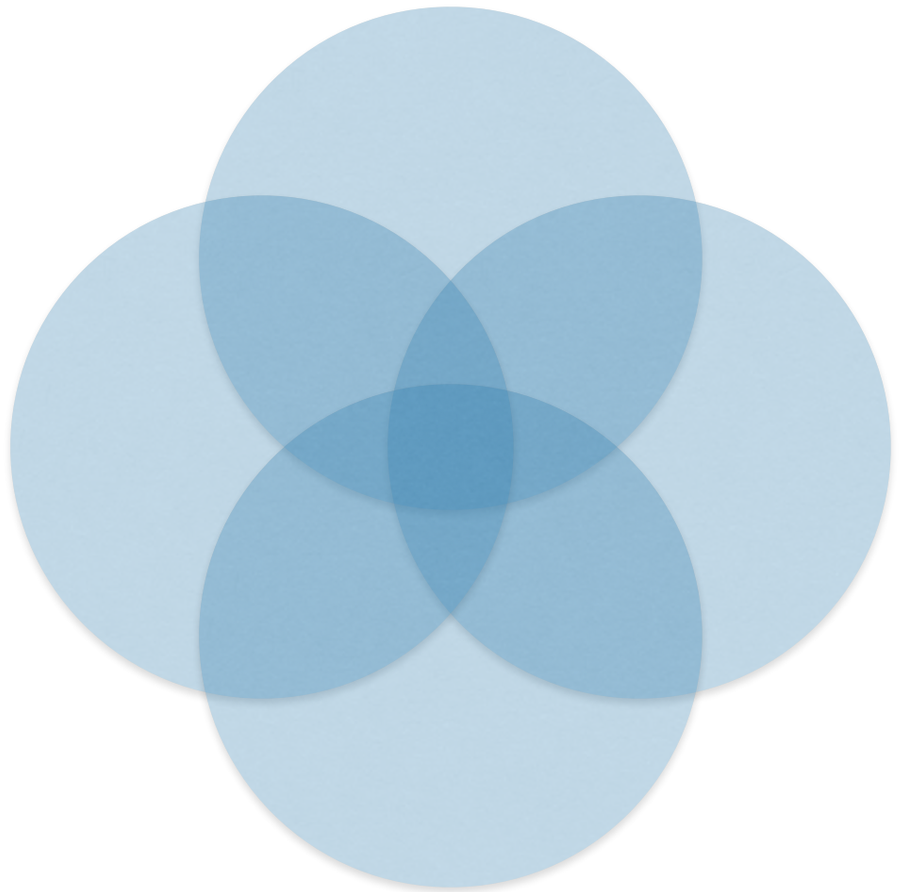
- Setup for High Frequency Trading (HFT)
- Fully open to the python development stack. There are integrated packages and a package white list system
- Multi asset class. US Equity/ETF Cash
- Limited Data: Namex per minute + Morningstar Fundamentals (Can access http hosted CSV files)

Quantopian is trying to…

- Crowd source a hedge fund
- Incentivize people to share their strategies.
- Contest

Quantopian needs a multi-dimensional person.

- Finance knowledge (or at least some intuition)
- Python skills
- Hacker skills
- Access to tradable capital



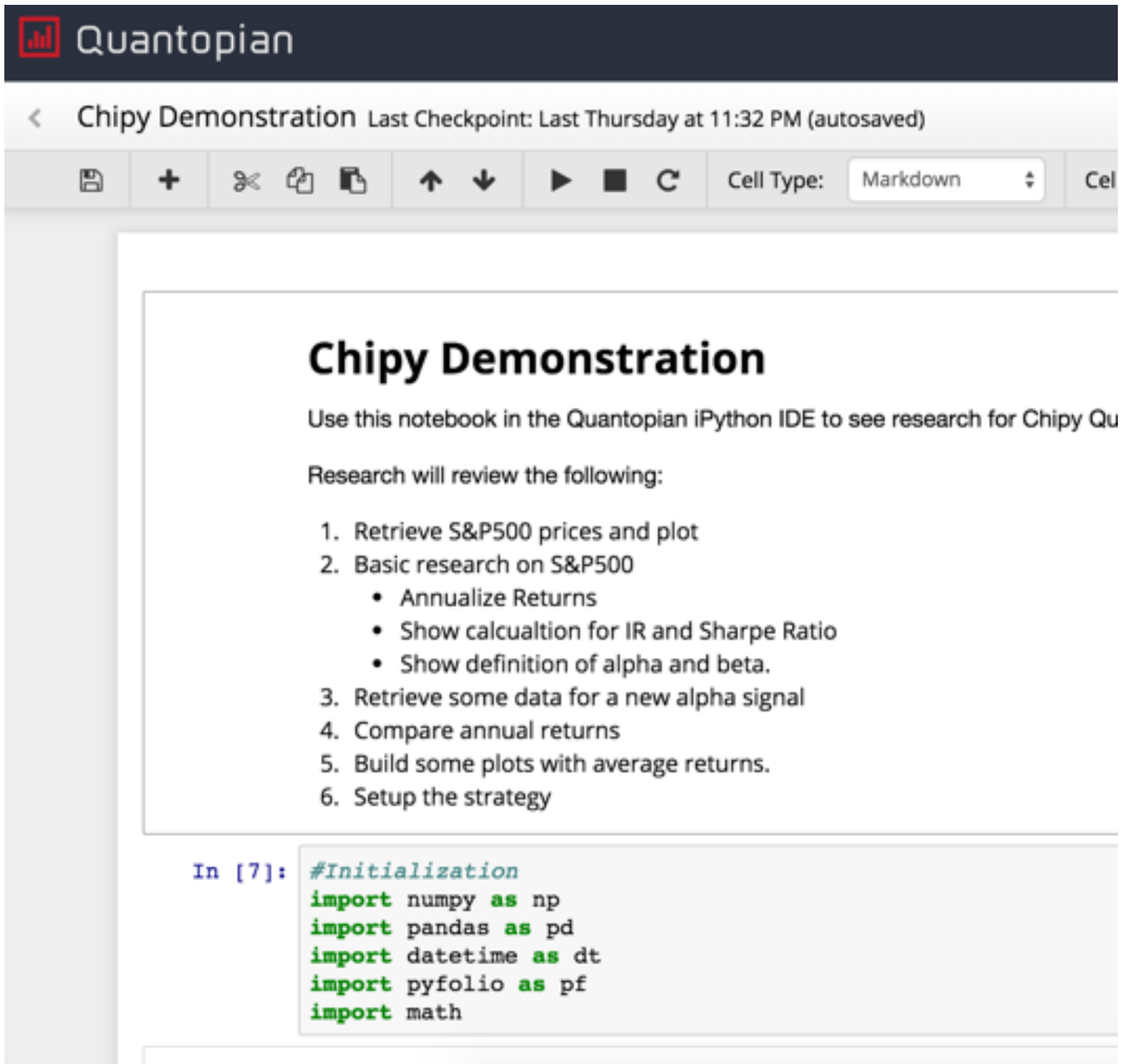
Lets take a tour

Researching in Quantopian

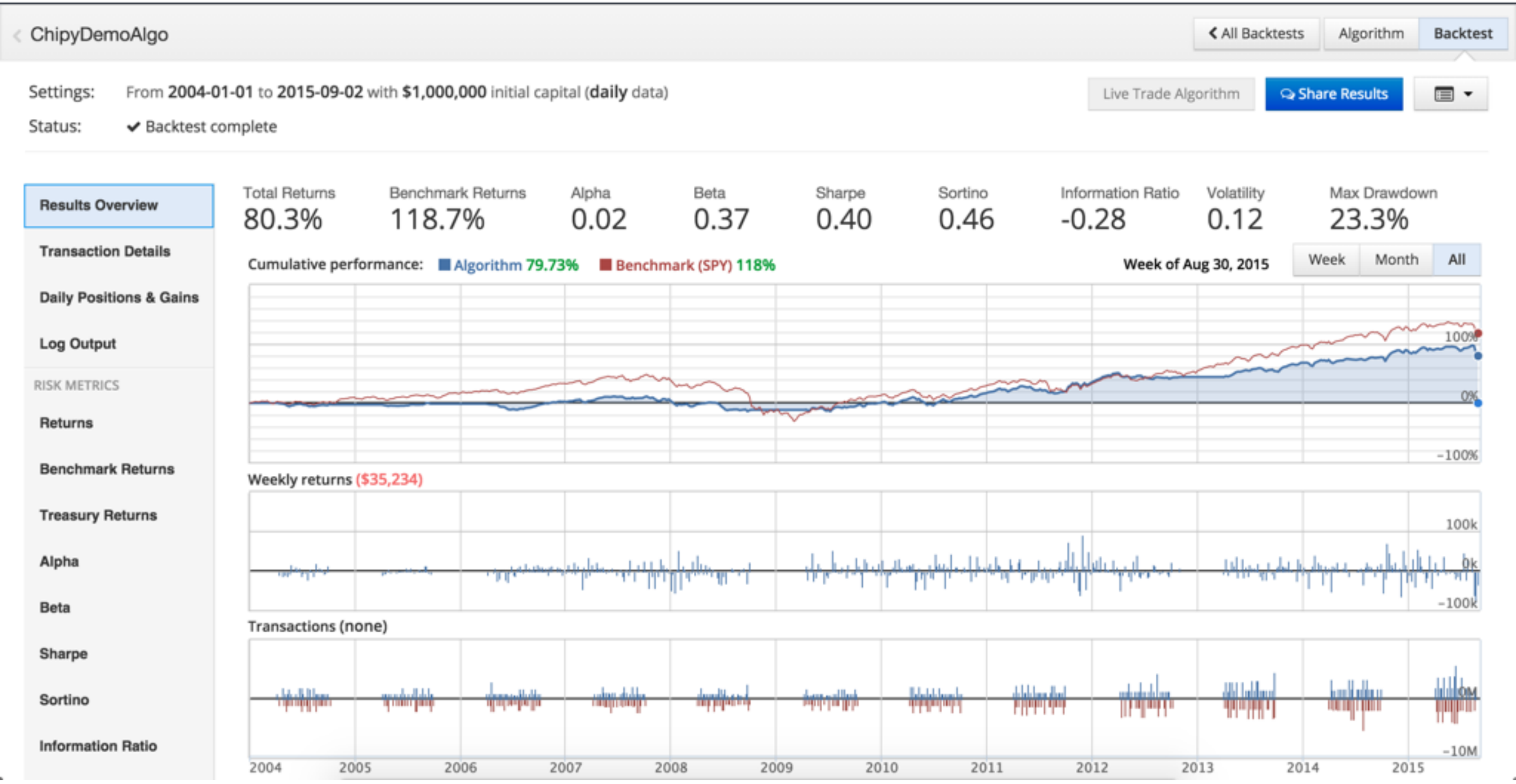
Strength	Weakness
Access to Quantopian API	Limited package support
Integrated Dynamic Coding tools	No environment support
Strong user support	

Research

- Explore in the tool
- External Data
- Researching a strategy
- Live Code Example!



Backtest


ChipyDemoAlgo
All Backtests
Algorithm
Backtest
Settings: From 2004-01-01 to 2015-09-02 with $1,000,000 initial capital (daily data)
Status: Backtest complete
Live Trade Algorithm
Share Results
Results Overview
Transaction Details
Daily Positions & Gains
Log Output
RISK METRICS
Returns
Benchmark Returns
Treasury Returns
Alpha
Beta
Sharpe
Sortino
Information Ratio
Total Returns 80.3%
Benchmark Returns 118.7%
Alpha 0.02
Beta 0.37
Sharpe 0.40
Sortino 0.46
Information Ratio -0.28
Volatility 0.12
Max Drawdown 23.3%
Cumulative performance: Algorithm 79.73% Benchmark (SPY) 118%
Week of Aug 30, 2015
Week
Month
All
100%
0%
-100%
Weekly returns ($35,234)
100k
0k
-100k
Transactions (none)
0M
-10M
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015

Some thoughts

- Use the forums
- Clone Algorithms
- Fundamental Strategies are somewhat unexplored

- github.com/davidkunio/chipy-quantopian
- github.com/quantopian/zipline
- https://www.youtube.com/watch?v=DcSM8IFKrTs
- https://www.youtube.com/watch?v=nCKzRY_JV4c