
Quantitative and Automated Trading via [Quantopian.com](https://quantopian.com)

a GR Big Data Users Group Presentation
by Tyson Spoelma

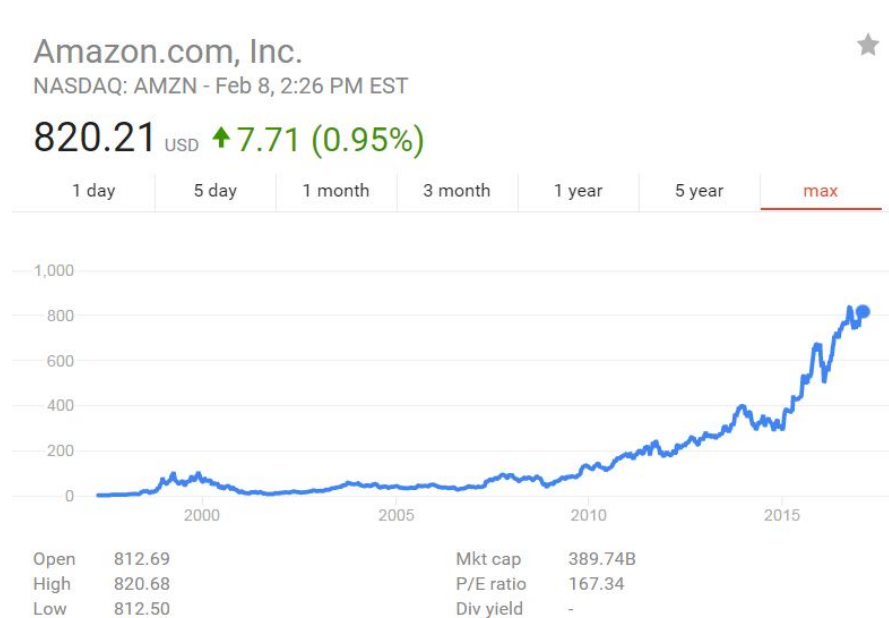
Stock Market = Money Machine

What is the best way to make a ton of money in the stock market?

*Disclaimer: I am not a financial advisor. Invest at your own risk.

Stock Market = Money Machine

What is the best way to make a ton of money in the stock market?



Stock Market = Money Machine

What is the best way to make a ton of money in the stock market?

- Take out human bias and emotions and make stock buying and selling decisions using a disciplined quantitative valuation method

Stock Market = Money Machine

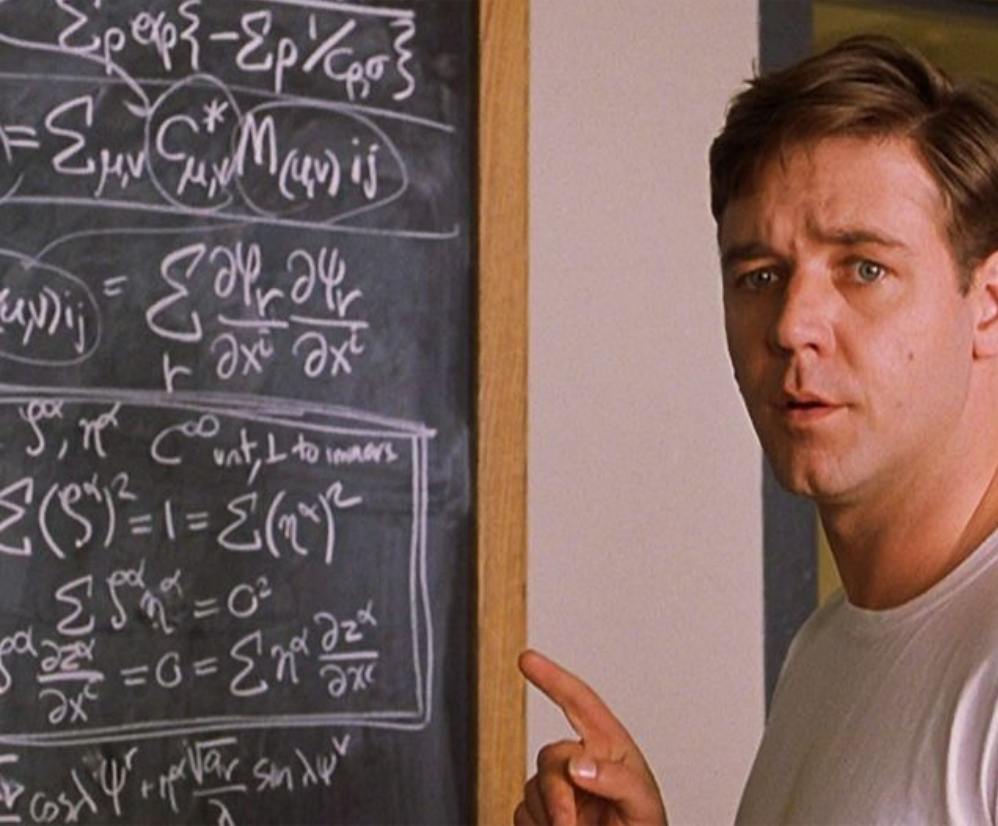
What is the best way to make a ton of money in the stock market?

- Take out human bias and emotions and make stock buying and selling decisions using a disciplined quantitative valuation method
- Automate the system

Stock Market = Money Machine

What is the best way to make a ton of money in the stock market?

- Take out human bias and emotions and make stock buying and selling decisions using a disciplined quantitative valuation method
 - Buy cheap stocks with low **Price to Book** ratios
 - Buy the most **popular** stock based on **Sentiment Analysis**
 - Ask your **cat** to pick 20 stocks (Random Walk Down Wall Street)
- Automate the system
 - Hire a Financial Advisor
 - Buy into an Index Fund
 - Write a program to take in all the necessary information and make the trades for you



How do I start?

Get Data

Test Strategies

Submit the Strategy for Live Trading



Quantopian

Data

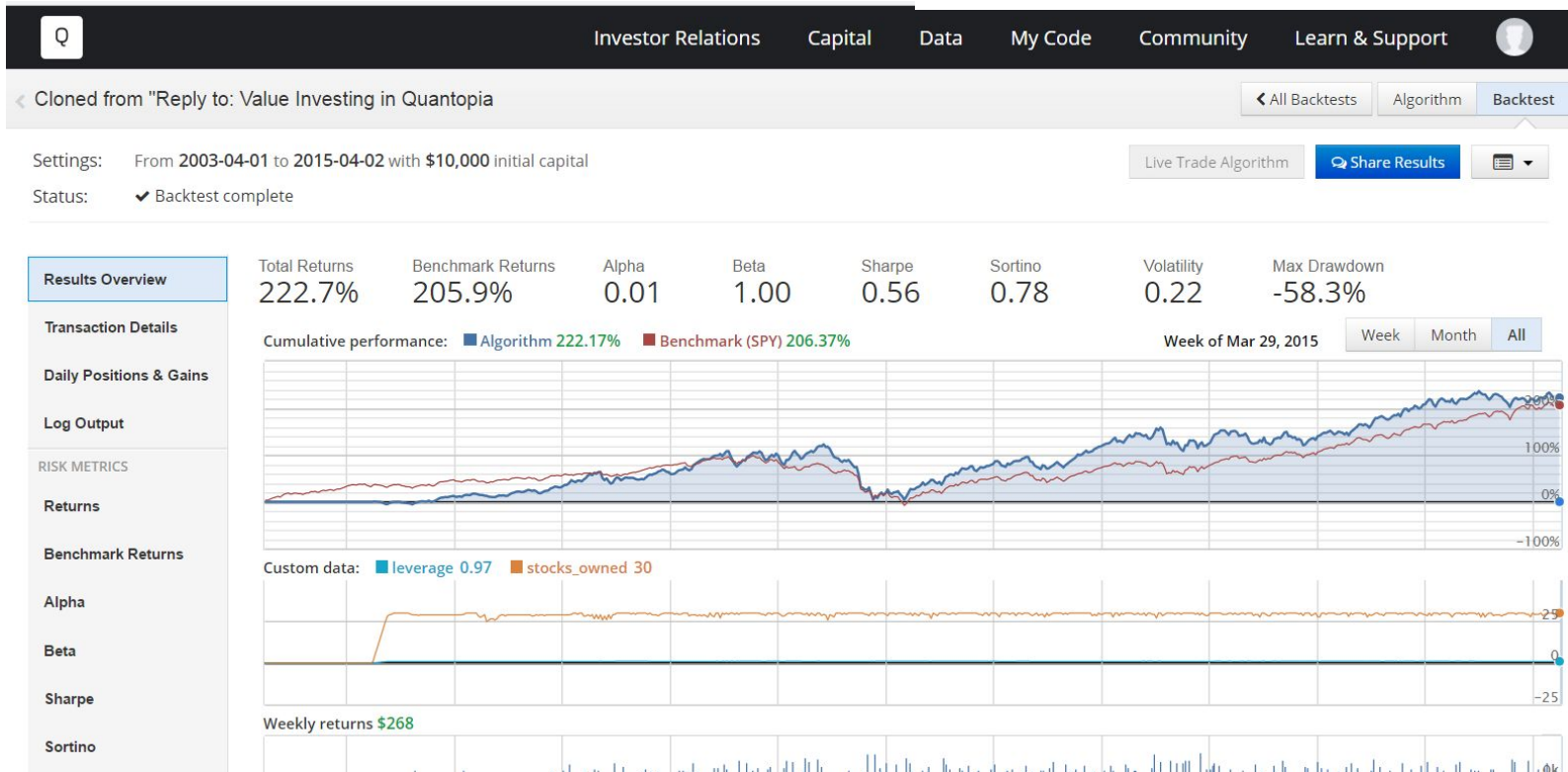


- **Fundamentals** (Free)
- **Mood** from PsychSignal (Free)
 - The mood of traders posting messages on Twitter with Retweets and StockTwits
- **Mergers and Acquisitions** (Premium)
- **Zacks Earnings Surprises** (Premium)
- **Buyback Announcements** (Premium)
- **Index Changes** (Premium)
 - Dataset of index additions and deletions to major S&P, Russell and Nasdaq 100 indexes
- **CEO Changes** (Premium)
- **Clinical Trial Announcements** (Premium)
- **13-D Filings** (Premium)
 - Dataset of 13D Filings with SEC by activist shareholders disclosing a beneficial ownership of 5% or more

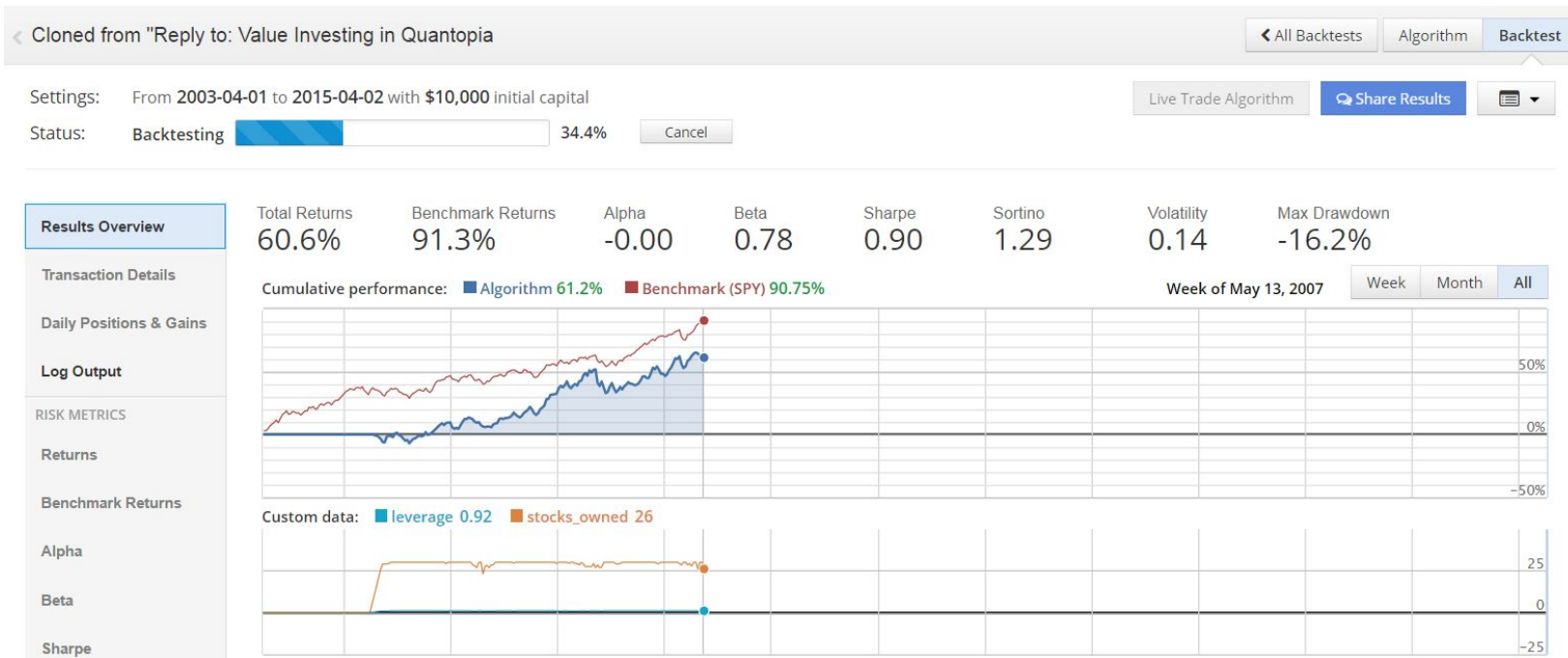
Test Strategies



Magic Formula (Joel Greenblatt)



Test Strategies



Copy Strategies



<https://www.quantopian.com/posts/a-simple-momentum-rotation-system-for-stocks>

A Simple Momentum Rotation System for Stocks



Anthony FJ Garner posted Dec 17, 2015

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pipeline

I really need to add a provision whereby only "winners" are rebalanced not losers. But there you go. Many people here can't seem to get a handle on simple trend following systems so I thought this might help!

Performance

Risk Metrics

Source Code

Migrated Source Code

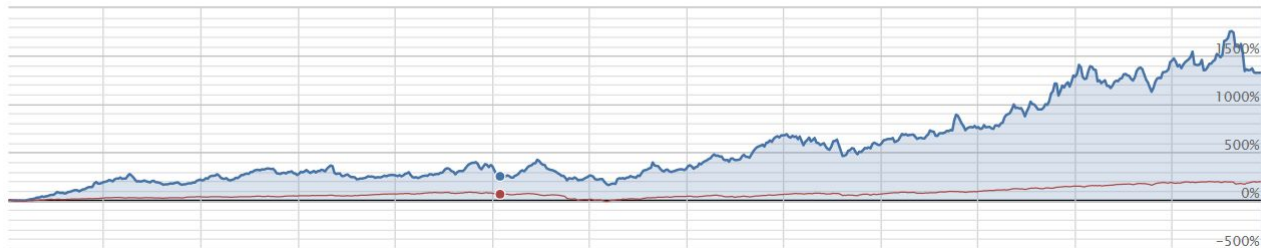
Clone Algorithm

2129

Backtest from 2003-01-04 to 2015-11-30 with \$100,000 initial capital

Cumulative performance: Algorithm 249.16% Benchmark (SPY) 63.34%

Week of Jan 28, 2008



Live Trading: (Warnings)

- Your Backtested strategy doesn't perform as well in the future
- You're not that patient
- After a number of successful years of trading you may not be able to trade the small cap stocks anymore due to liquidity. Moving to a bigger companies (higher Market Caps) may ruin your strategy.

Stock Market = Money Machine

What is the best way to make a ton of money in the stock market?

Just buy the S&P 500 index (\$SPY).

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