

QUANTITATIVE FINANCE PLATFORM

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Introduction

Platform for researching and testing trading strategies

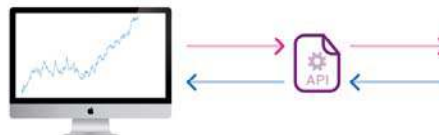
Investors develop strategies to buy or sell stocks

Explosion in the quantity of data being produced

Access multiple data providers from API

Back-test strategies based on data sources

Analyze strategies using standardized metrics



Data API



Methods

Data API

Data Processing

pandas



Statistical Packages

NumPy

SciPy

IDE and Back-testing

IP[y]: IPython
Interactive Computing

matplotlib

Development

Flask
web development,
one drop at a time

```

if context.stock[i] in context.rebalance_longs:
    if ((context.macd[i] != 0) and (macd > context.macd[i])):
        order_target_percent(context.stock[i], context.weight[i])
        long_exposure = long_exposure + abs(context.weight[i])
    else:
        order_target_percent(context.stock[i], 0.0)
elif context.stock[i] in context.rebalance_shorts:
    if ((context.macd[i] != 0) and (macd < context.macd[i])):
        order_target_percent(context.stock[i], context.weight[i])
        short_exposure = short_exposure + abs(context.weight[i])
    else:
        order_target_percent(context.stock[i], 0.0)
context.macd[i] = macd
context.AO[i] = AO
    
```

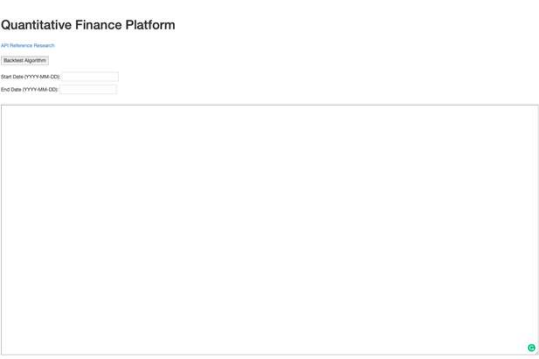


Back-tester

Risk Analysis

Risk Analysis

User Interface



Backtest	
Annual return	16.1%
Cumulative returns	646.3%
Annual volatility	9.0%
Sharpe ratio	1.70
Calmar ratio	1.30
Stability	0.97
Max drawdown	-12.4%
Omega ratio	1.38
Sortino ratio	2.63
Skew	1.87
Kurtosis	19.29
Tail ratio	1.21
Daily value at risk	-1.1%
Gross leverage	1.00
Daily turnover	293.5%
Alpha	0.15
Beta	0.06

