From idea to a trading robot. Quickly

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www.IBridgePy.com
An easy-to-use Python platform to backtest and live trade

Contents

Come up a trading idea

Good trend in long term

Swing in short term

My goal: Buy low Sell high

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An easy-to-use Python platform to backtest and live trade

Collect historical data

- Brokers
- Yahoo finance
- Others

Build a machine learning model

algoTradingSummit_buyLowSellHighModel.ipynb

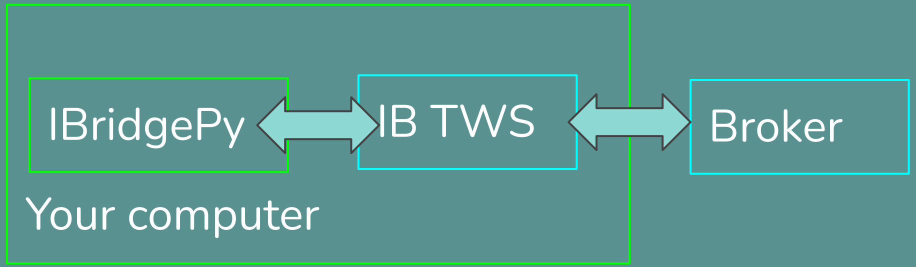
- Retrieve historical data
- Prepare data
- Build a linear regression model
- Visualize
- Make a stock screener

Will use IBridgePy to demo

Intro to IBridgePy

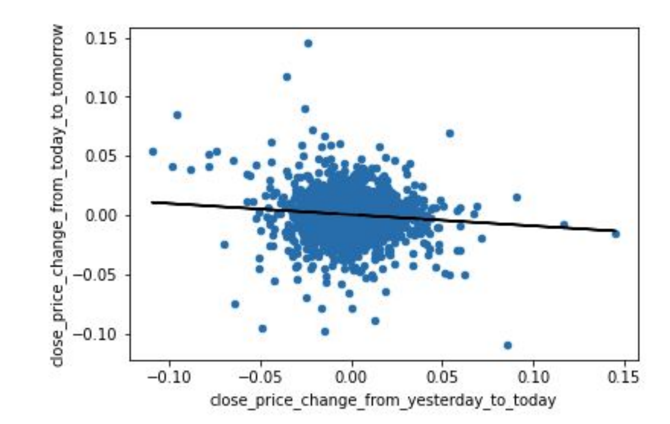
An easy-to-use Python platform to backtest and live trade with different brokers.

- 100 % Privacy
- Manage multiple accounts
- Backtest using any data providers
- Live trade



Model result

algoTradingSummit_buyLowSellHighModel.ipynb



- 'SPY': -0.094
- 'QQQ': -0.063,
- 'AAPL': -0.049,
- 'GOOG': -0.021,
- 'TSLA': 0.0026 --Positive?

Conclusion: Buy low Sell high may work on SPY.

Create a trading robot

```
def initialize(context):                                   # IBridgePy runs this function only once at the beginning
    context.security = symbol("SPY")                        # Define a security, SP500 ETF
    schedule_function(buy_low_sell_high,                    # Schedule a time to run another function buy_low_sell_high
          date_rule=date_rules.every_day(),                 # The function of buy_low_sell_high is triggered every trading day
          time_rule=time_rules.market_close(minutes=1))     # at 15:59PM EST, one minute before the market close

def buy_low_sell_high(context, data):                      # The logic of buy low sell high are made in this function
    hist = request_historical_data(context.security, "1 day", "2 D")    # Retrieve historical data, daily bars, go back 2 trading days
    close_yesterday = hist['close'][-2]
    close_today = hist['close'][-1]
    if close_today > close_yesterday:
        order_target_percent(context.security, 0.0)         # Sell off all SPY positions if any
    else:
        order_target_percent(context.security, 1.0)         # Buy SPY use 100% of portfolio
```

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An easy-to-use Python platform to backtest and live trade

Backtest

- Use historical data directly from brokers
- Use any 3rd party data providers
- Bactest minute-by-minute, even second-by-second
- Speed up!

More details on https://ibridgepy.com/tutorials/

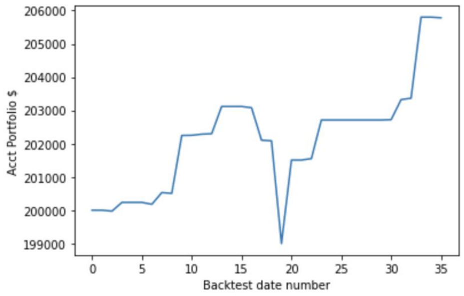
Backtest

AlgoTradingSummit_TEST_ME_easiest.ipynb

- Choose a strategy py file
- Pick a startTime and endTime for backtesting
- Confirm data provider

```
In [1]: from tools.portfolio_sharpe_ratio import use_latest_backtest_balanceLog
        use_latest_backtest_balanceLog()
```

```
annualized sharpe ratio = 2.9391926913653164
```



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Backtest

AlgoTradingSummit_TEST_ME_localHistFile.ipynb

- ...
- Provide historical data files

```
####    Data ingestion starts    ####
Ingested hist from filePath=/IBridgePy/Input/SPY_1day_55D.csv
ingested hist of security=STK,,,SPY,USD barSize=1 day from LOCAL_FILE
1st line=2020-10-08 00:00:00-04:00
last line=2020-12-24 00:00:00-05:00
Ingested hist from filePath=/IBridgePy/Input/SPY_1min_55D.csv
ingested hist of security=STK,,,SPY,USD barSize=1 min from LOCAL_FILE
1st line=2020-10-29 13:30:00-04:00
last line=2020-12-24 17:59:00-05:00
####    Data ingestion COMPLETED    ####
```

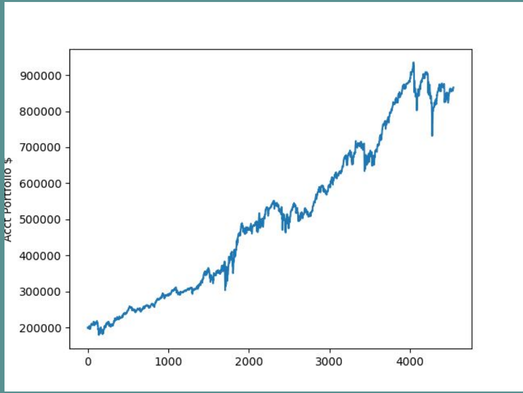
Backtest

AlgoTradingSummit_TEST_ME_simulated_by_daily_bars.ipynb

- Backtest only use daily historical data from Yahoo finance

histIngestionPlan.add(Plan(security=symbol('SPY'), barSize='1 min', dataSourceName='simulatedByDailyBars'))

Buy and hold SPY



Buy low sell high 2001-2020

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Live trade

- No code change at all !
- RUN_ME.py

Thank you so much for your attention

Check out our well known Rent-a-Coder service if you need help on coding

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