# STOCK-CHART STOCKS AND ETF ANALYSIS URL http://84.228.164.65:3

Stock-chart is used to compare stocks and ETF in American stock market NYSE and NASDAQ. The tool is designed for long term investors.

#### **USAGE AND TESTING INSTRUCTIONS**

- Load URL to browser http://84.228.164.65:3000
  First time users, a sample list of stocks will be loaded .
- Press <fill\_gain\_info> twice. To fill gain and info, which other users shared through Firebase. The information may be old. Check the columns info\_date & gain\_date
- Press <info> button, to bring overview data from AlphVantage.co (Not for ETF)
- Press <gain> button, to bring gain data from AlphVantage.co. Pressing <gain> draws a chart. Gain == 2 means 100% price increase.
- Hide/Display columns by selecting or deselecting check boxes at the top
- Sort a column by pressing the column title.
- Press <del> to delete a stock symbol
- Add a stock symbol, and press <Add>
- Global Search/filter string.
- Persistence: Press <save-data> button. Then close the browser tab, and reload again. Verify same data.
- The chart uses Plotly library. It allows zooming, and revert zoom.

# **RAW DATA (GAIN AND INFO) SOURCE**

The tool gets the raw data from AlphVantage.co API. The user needs to get his own <key> from AlphVatage.co site. The key should be entered at the bottom. Otherwise you are sharing my key.

Free key allows 5 API calls per minute, and 500 per day. Please get your own <key> from AlphVatage.co site, and insert it at the bottom of the page. Otherwise you will be using my key. .

### **ALPHAVANTAGE.CO API GAIN PITFALL**

Before relying on the tool, the user MUST compare the values with other providers like, google finance, or finance.yahoo.com

Market info retrieved through AlphaVantage.co API. The API provides nominal stock historical prices and ignores splits and reverse-splits, and provide nominal stock or ETF price. The tool tries to guess splits by looking into sharp falls, or sharp rise. The button <calc-splits> allows to bypass these calculations.

The guessed splits column, can be shown by checkbox <splits\_list> Purple chart means splits discovered, and chart and gain value manipulated. Green chart means no split calculations.

#### **DROP-RECOVERY-ANALYSIS**

The tool analyses stock drop during market drop proportion, and recovery duration in weeks to recover stock price. The tool is valid only during an overall bull market, with some bear periods.

#### Steps:

- Open the Drop-Recovery-analysis pan.
- Choose a date, before the drop (Or big correction)
- Press the <gain> button of few stocks.
- The tool turns on 3 related columns:
  - Drop: how low did the stock drop (0.7 means a drop of 30%)
  - o Recover week: how many weeks it took to reach the pre correction stock price.
  - Drop date approximation.
- Algorithm
  - Search for the lowest price within selected
  - Search for highest price before correction
  - Search for recover duration in weeks
  - Calculate drop, and recovery duration.

Default dates are: 2008 market drop, and 2020 market drop.

## STOCKS-COMPARED-WITH-QQQ

This button will show a list of stocks and ETF that are equivalent or better than QQQ, the list is retrieved from shared database (firebase), that other users checked <gain> and <info>

The bench mark for comparison is QQQ ETF, NASDAQ hi-tech average. User should hold only stocks that perform better than QQQ, or invest in QQQ. The columns: wk, mon, 3mon, yr, 2yr, 5yr, 10r, shows the gain proportion. A gain of 2, means the stock price doubled during that period. Other fields can be found on google.

## **BACKEND DATABASE (FIREBASE). SHARE INFO BETWEEN USERS**

The tool stores gain and info data shared with other users in a global database. This data is used to fill gain and info in the table.

<Stocks-compare-to-QQQ> The button shows a list of symbols for stocks that are close to QQQ yearly gain.

<Stock-popularity> the button shows statistics of number of users that checked the gain of a symbol

## **PERSISTENCE** The tool saves local info in localstorage

# **USED PACKAGES**

The tool is built on top of JavaScript, React.JS library, react-table, Plotly, Redux, react-datepicker

# **BUG REPORT AND ENHANCEMENTS**

The tool was developed by Eli Shagam, Please send any bug report, or enhancement request to eli.shagam@gmail.com