

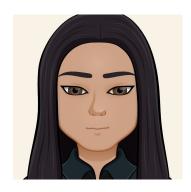
# Stock Inspector Consulting

San Francisco I New York I Shanghai I London I São Paulo

July 11th, 2020



## Our SF team



James Ye CEO / Co-Founder

"I love combining the rationality of coding with the emotions of financial markets"



Tanvir Khan CTO / Co-Founder

"I want to encourage more women to invest"



Nicky Pant Financial Advisor

"I love when stocks hit the moon and I see my clients happy"



Paul Pineda CIO

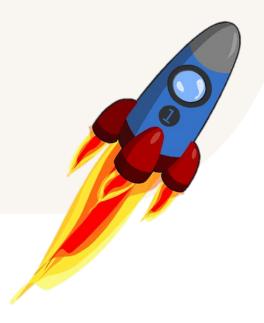
"Educating customers on investments opportunities is my passion"



Fabienne Zumbühl CDO

"The excitement of collecting data keeps me awake at night"

### Our Mission Statement

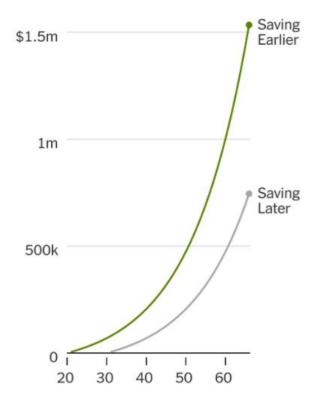


"Make investments more accessible and easier"



## Investing Sooner Rather Than Later Pays Off

An individual who begins investing in their twenties rather than their thirties will likely end up with a retirement account balance that is nearly twice the size.



Note: Assumes one investor starts saving \$5,000 annually at age 22, while the other starts at age 32. They both start with a \$5,000 balance, earn a 7 percent return and retire at 67.

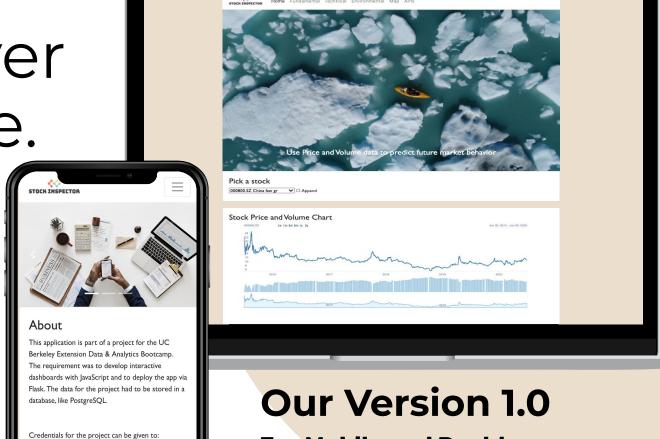
Source: New York Times (2020)



# Investing in stocks has never been so simple.

In order to solve investment decision problems that most young investors face, we developed the Stock Inspector® application.

The stock inspector application provides you fundamental, technical with and environmental data on the top Global Fortune 172 companies.

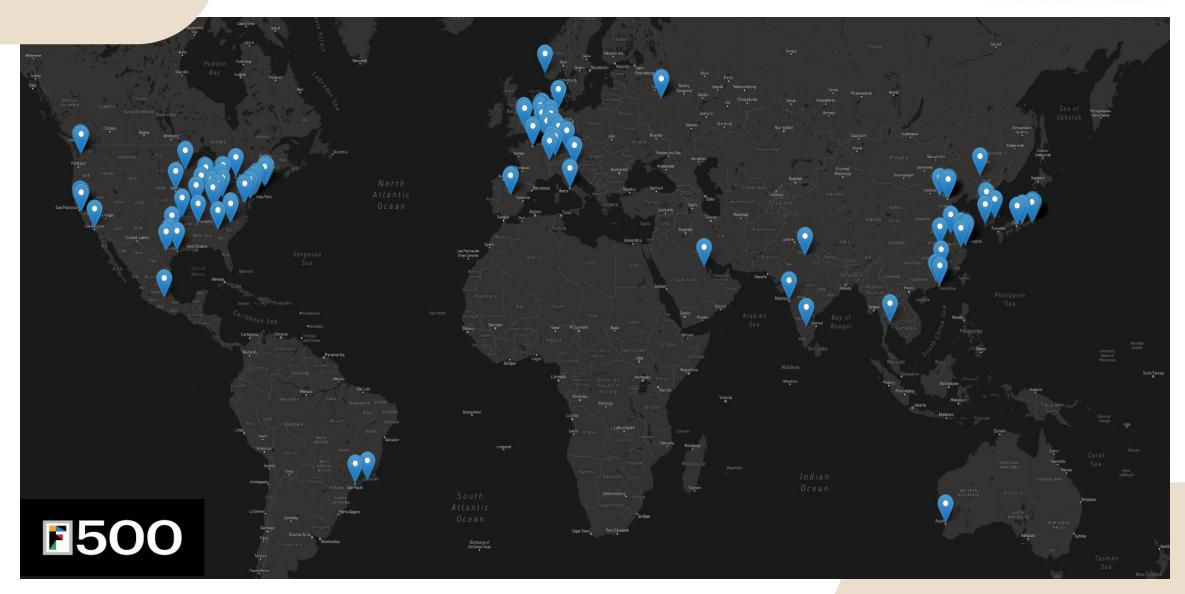


 Tanvir Khan Nicky Arohi Pant Fabienne Zumbühl James Ye · Paul Pineda

For Mobile and Desktop

# Our Global Portfolio





## Let's check it out!

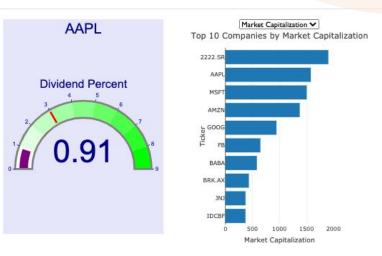


https://stock-inspector.herokuapp.com/





#### Stock AAPL Apple Summary ticker: AAPL name: Apple ranking: 11 mkt cap: 1581 eps: 12.73 dividend pct: 0.91 exchange: NasdaqGS esg\_score: 24 recom\_rating: 2 sector: Technology industry: Consumer country: United States city: Cupertino latitude: 37.3347988 longitude: -122.011196



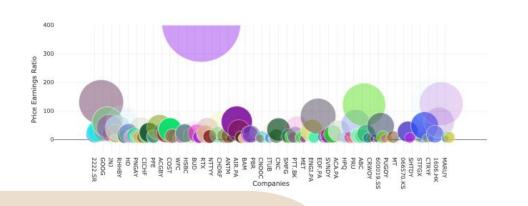
## Fundamental Graphs

#### Summary Graph

Provides an **overall summery** on the companies

#### Dividend Percent Gauge

Provides an overview on the **dividend percent** emitted to stockholders



#### Top 10 Companies

- for Market Capitalization
- for **Dividend Percent**
- for Price per Earnings (is inverted, meaning the lower the better)

#### Reach your dream

**Relative visualization** of companies and their price earnings ratio





#### Pick a stock

AMZN Amazon

#### Stock Price and Volume Chart



## Technical Graphs

#### Price Graph

- user friendly **price graphs** that provide information on:
  - o closing prices (blue line)
  - average prices (red line)
  - volume of stocks bought
  - market trend
- Example: After March 2020, prices dropped for Apple and Amazon. When the prices dropped, the volume of the stocks bought increased because people believed in the prices going up again. Which they did. Amazon recovered even faster than Apple.

price change

volume change

slide bar to inspect a specific time frame

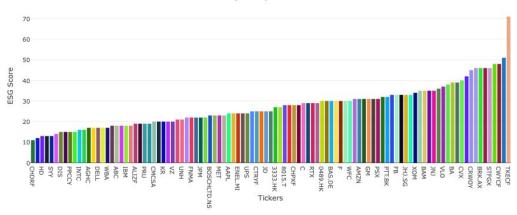






# ESG Score 10 20 24





## Environmental Graphs

#### Gauge Graph

- Interactive Visualization on the **ESG Score of a company**:
  - How does a company minimizes industry specific ESG risks
  - ESG score from **0 to 100** (Sustainanalytics methodology)
  - The ESG score is a combination of the E, the S and the G score
  - o <u>Example:</u> Apple has a ESG score of 24

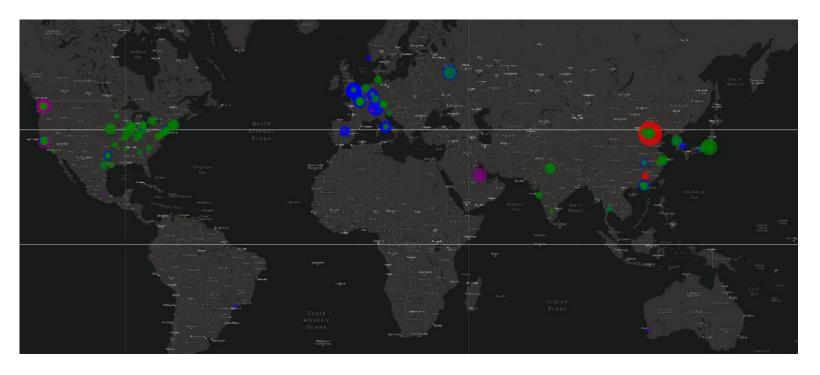
#### Bar Graph

- Interactive Visualization on the relative ESG score:
  - Holistic view on all the companies
  - Sorted in ascending order
  - Lowest score: Christian Dior (11)
  - Highest score: Tokyo Electric Power (71)





## Overall Portfolio Representation



- **Diversified** stock portfolio
- We provide **opportunities** for **risk averse** and **risk taking investors**
- <u>Blue Circles:</u> Dividend Payment Most steady in Europe
- Red Circles: Price per Earnings highest ratio for JD.com in China
- <u>Purple Circles:</u> Market Capitalization
- Green Circles: ESG Rating

# Our coding approach

#### Back-End













Python

PostgreSQL

SQLAlchemy

Flask

Heroku

#### Front-End



HTML/CSS & Bootstrap

JS

JavaScript

#### JavaScript Libraries









Plotly, D3, Leaflet, jQuery

New Library: Datatables





## Conclusion

There are different aspects, namely fundamental, technical, and environmental considerations that have to be taken into account when investing in stocks.

Providing a **diversified portfolio** across e.g.industries and markets is key.

#### On Groupwork

**Utilizing every team members strength** in a group project leads to **knowledge exchange** and a good final outcome!

#### Limitations

Limited Data on ESG score, P/E ratio & Dividend Percent

**More data** was available on **US based companies** - might lead to bias

#### Outlook

Improving the mobile version of the Stock Inspector

Candlestick chart could be added

 ${\bf ESG\ score}$  could be split up in  ${\bf E,S\ and\ G}$  scores separately

