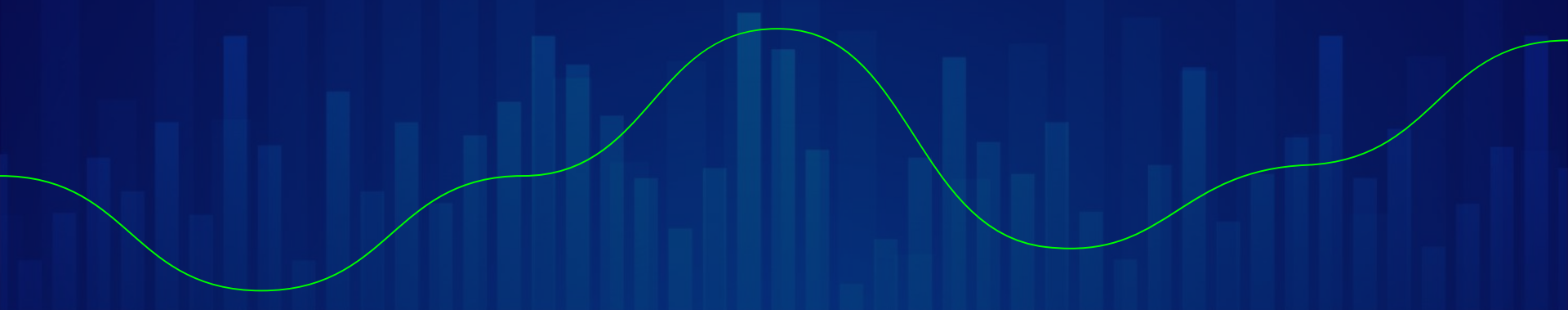


Stock Market Analysis

By: Jayden Mathew



Background:

- Business Interest:
 - Prior Stock Investments
- Inability to webscrape
 - Yahoo Finance Blocked
- CSV Files → No Restrictions



Purpose:

- Tool for Investors
 - Experienced or Inexperienced
- User-Friendly Approach
 - Easier to “digest”

Who Benefits:

- Experienced Investors / Companies
 - Provides Most Important Information
- Inexperienced Investors
 - Safer versus Riskier Growth Stocks



Methodology

CSV File

- Four Fortune 500 Companies
- Basic Stock Measurements
- Easy to Analyze
 - No Restrictions on Use

ChatGPT

- Appealing Visualization
- Improved Understanding

Jupyter Notebooks

- Cell by Cell Workbook
- Python Programming:
 - Pandas Dataframes
 - Matplotlib Graphs

Yahoo Finance

- Referenced Throughout
- Ensured Accuracy of Outputs



Analysis Questions:

01

Which company had the highest and lowest percent change overall?

02

What was the average stock price for all of the companies?

03

Which company holds the highest and lowest volume all time?

04

Which date did each company have their highest stock price per share?

05

Which company had the highest change in stock value held in a singular day?

Results

Tesla

- Quickest Growth
- Extremely Volatile
- Relevant
- Risky

Apple

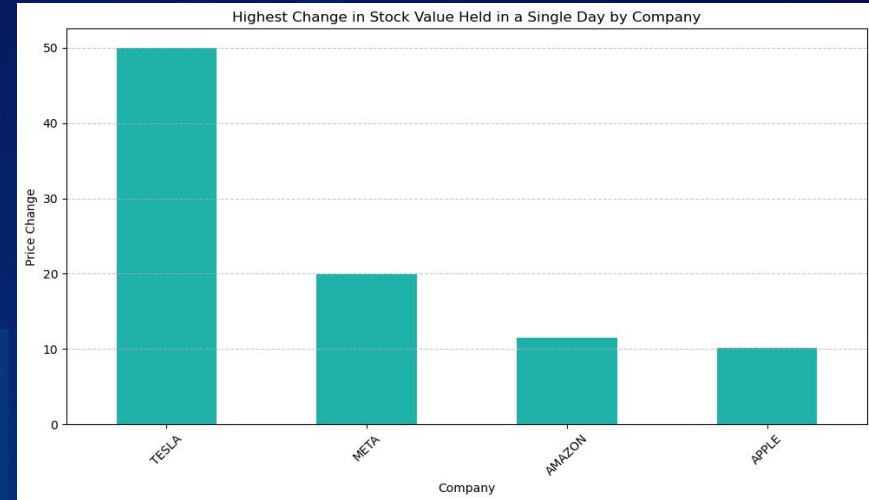
- Steady Growth
- Not Volatile
- Relevant
- Safer

Amazon

- Steady Growth
- Little Volatility
- Losing Relevance
- Safer

Meta

- Volatile Growth
- Low Volume
- Relevant
- Risky



Future Work



More Datasets + Companies

- More Fortune 500 Companies
 - Through Additional (Kaggle) CSV Datasets
- More Comparable Data
- More Comprehensive Overview of Stock Market
- More Opportunities
 - For Inexperienced + Experienced Investors





Thank You !

Appendix

Peak Stock Prices Since 2008:

COMPANY	Peak Price Date	Highest Price
AMAZON	2021-07-08	186.57
APPLE	2023-07-31	196.45
META	2021-09-07	382.18
TESLA	2021-11-04	409.97

df.head()

	DATE	OPEN	HIGH	LOW	CLOSE	ADJ CLOSE	VOLUME	COMPANY
0	2018-11-20	44.592499	45.367500	43.877499	44.244999	42.466824	271300800	APPLE
1	2018-11-20	71.875000	76.737503	71.000000	74.773003	74.773003	217576000	AMAZON
2	2018-11-20	127.029999	134.160004	126.849998	132.429993	132.429993	41939500	META
3	2018-11-20	22.783333	23.320000	22.236668	23.166000	23.166000	120070500	TESLA
4	2018-11-21	44.932499	45.067501	44.137501	44.195000	42.418831	124496800	APPLE

Appendix

