International Investment Portfolio

Strategy, Analysis, and Forecasting

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1 What was my investment strategy?

1.1 Strategic Rationale and Support

Developing my investment strategy wasn't just about randomly picking assets (like I did the first time). It was about strategic thinking, data-driven insights, and a bit of gut feeling (because who doesn't rely on intuition sometimes?). The portfolio was created with the Modern Asset Selection Theory (MAST) in mind, aiming to maximize returns while minimizing risks. But let's face it, the real world is a bit messier than theory, so flexibility was key.

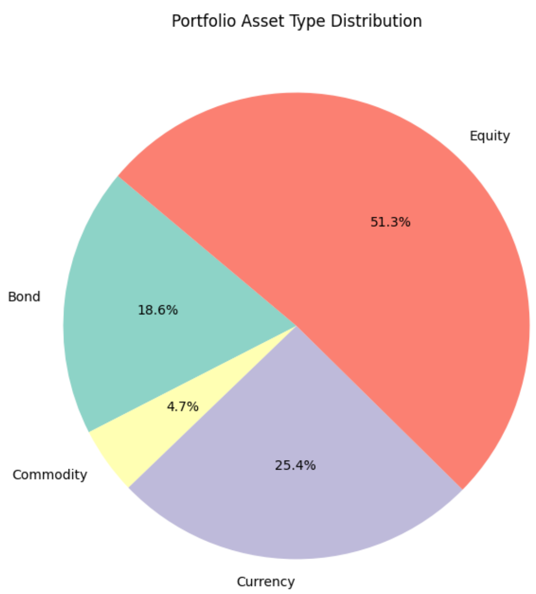
In crafting this strategy, I paid careful attention to current economic conditions, geopolitical shifts, and sector-specific trends. The global economy is in constant flux, and my portfolio needed to adapt to these changes. Let's break it down:

- Federal Reserve interest rates have been on the rise, which creates headwinds for growth stocks but benefits more stable, income-generating assets.
- Trade tensions, especially between the US and China, have significant implications for tech companies, tariffs and supply chain disruptions have both positive and negative effects on companies like Nvidia and Palantir.
- Geopolitical instability in Europe and the Middle East made me think twice before jumping into risky investments, which is why I included safe-haven assets like the Swiss Franc and US Treasury Bonds.
- The cybersecurity threat is real and growing, which is why I couldn't ignore the strong fundamentals of companies like CrowdStrike and Palo Alto Networks.

I'm not saying I have a crystal ball, but I sure did my best to factor in all these moving parts. With the $10,000,000 portfolio, I carefully selected assets that are positioned to capitalize on growth while protecting against market turbulence.

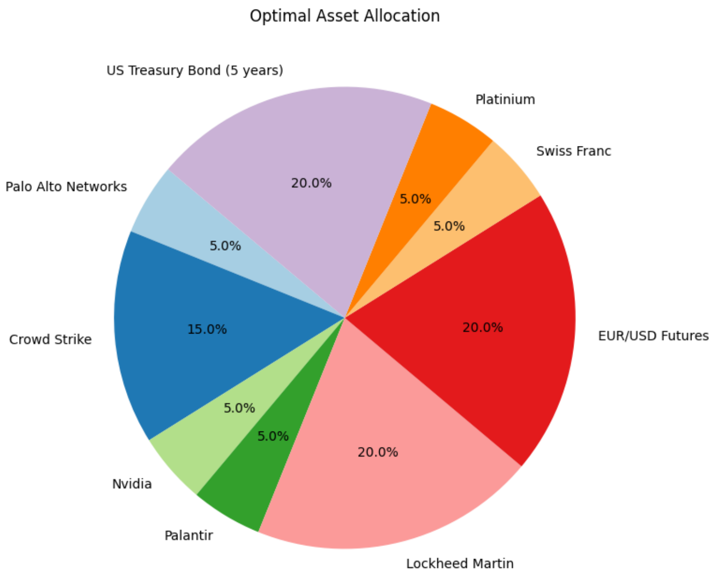
1.2 Portfolio Allocation

The allocation of assets was carefully calculated to reflect my strategy. The risk-return profile of each asset was thoroughly considered, ensuring I wasn't just throwing darts at a board. Here's how the chips fell:



- 51.3% Equities: A mix of high-growth technology stocks, including Nvidia, CrowdStrike, Palantir, and Lockheed Martin. These are the growth engines, the ones that are meant to soar high (hopefully), especially as the AI, cybersecurity, and defense sectors continue to expand.
- 25.4% Currencies: EUR/USD Futures and Swiss Franc. These were chosen with the view that US Dollar might weaken in the short term, especially with the Fed's tightening policies. Plus, the Swiss Franc acts as a safe haven in case things go south.

- 4.7% Commodities: Platinum, an inflation hedge with strong ties to green energy and automotive sectors.
- 18.6% Bonds: US Treasury Bonds (FVX). These are the anchors that keep the portfolio from floating away into volatility.



These weights reflect a diversified portfolio that is designed to take advantage of high-growth technology stocks (with a heavy allocation to companies like CrowdStrike and Lockheed Martin) while managing risk with more stable assets like Platinum and US Treasury Bonds. The inclusion of EUR/USD Futures and Swiss Franc as currency assets offers a hedge against USD fluctuations, while Platinum provides a defensive commodity exposure.

Now, here's the fun part. To calculate how these assets are expected to behave, I used Python to process historical price data and compute key metrics like returns, volatility, and covariance. Using the pandas library, I was able to fetch data from Yahoo Finance and apply various formulas to calculate the annual returns, annual volatility, and the covariance matrix between the assets.

Here's a quick rundown of the steps I followed:

- Data Collection: Using Python and the requests library, I gathered daily price data for each asset in the portfolio.
- Daily Returns: I calculated the daily returns by taking the percentage change in price from one day to the next.
- Monthly and Annual Returns: I resampled the data by month and year to get monthly returns and annual returns. The annual return was calculated by simply comparing the first and last prices of the year, while the monthly return used the compounded daily returns.
- Volatility: To determine the volatility, I calculated the standard deviation of daily returns and annualized it by multiplying by $\sqrt{252}$ (the number of trading days in a year). This tells me how much the asset price fluctuates from its average.
- Covariance: The covariance matrix was calculated using 'cov()' in pandas, which gives the relationship between the returns of different assets in the portfolio.

These steps were critical for forming a well-optimized allocation that accounts for both expected growth and risk management.

1.3 Expected Returns

Based on my allocation and the historical performance of the assets, I've estimated the expected returns for my portfolio over both short-term (60 days) and long-term (1 year) horizons.

- Annual Portfolio Return: 107.54% (Yes, that's right, I'm not dreaming, but who wouldn't want that?)

- Annual Portfolio Volatility: 49.99% (Volatility is a part of the game, but high volatility means high reward, right?)
- Sharpe Ratio: 2.05 (A strong risk-adjusted return, giving me confidence that this portfolio won't just perform well but outperform risk).
- Expected Return Over 60 Days: 25.61% (Short-term excitement!)
- Expected Volatility Over 60 Days: 387.20% (If this portfolio was a rollercoaster, I'd buckle up, because it's going to be a bumpy ride!).

I used these numbers to assess whether my portfolio will meet my expectations, considering the ongoing geopolitical risks, interest rate changes, and sector-specific performance trends.

But let's be real here, market conditions can be unpredictable, so I'm prepared to adjust the portfolio if things take an unexpected turn. So, I'm hoping for the best, but I've got a solid strategy in place just in case things don't go as planned.

2 Portfolio Performance

2.1 Monitoring International News and Economic Events

Over the course of the 60-day period, I kept a close eye on international news and economic events that could have an impact on my portfolio. The world of finance, as we know, is never static, and major developments can influence asset performance in ways that models and calculations sometimes miss. So, I dug into the headlines to assess how these factors played out and affected my investment strategy. Let's break down the key events that shaped my portfolio between April and June 2025.

On April 28, Palo Alto Networks announced its plan to acquire Protect AI, a company specializing in AI security. This acquisition aims to strengthen Palo Alto's offerings in digital security for AI applications, a booming sector in 2025 [1]. On May 20, the company reported strong financial results for Q3 2025, showing a 15% increase in revenue year-on-year [2].

On June 3, CrowdStrike posted impressive Q1 2026 revenues of $1.1 billion, an increase of 19.8% compared to the previous year. However, the company issued slightly disappointing forward guidance, which led to a brief dip in stock price [3].

On May 28, Nvidia reported a 69% increase in revenue for Q1 2026, driven largely by booming demand for its AI chips [4]. US export restrictions to China hit Nvidia hard in early 2025, causing a drop in stock prices by $4.5 billion due to excess inventory [5].

In April, Palantir expanded its partnership with Google Cloud to provide secure cloud computing services for U.S. federal agencies, particularly in the realm of AI-driven data analytics [6]. On June 3, Palantir saw a remarkable 76% increase in stock price in 2025, fueled by both government contracts and strategic private sector partnerships [7].

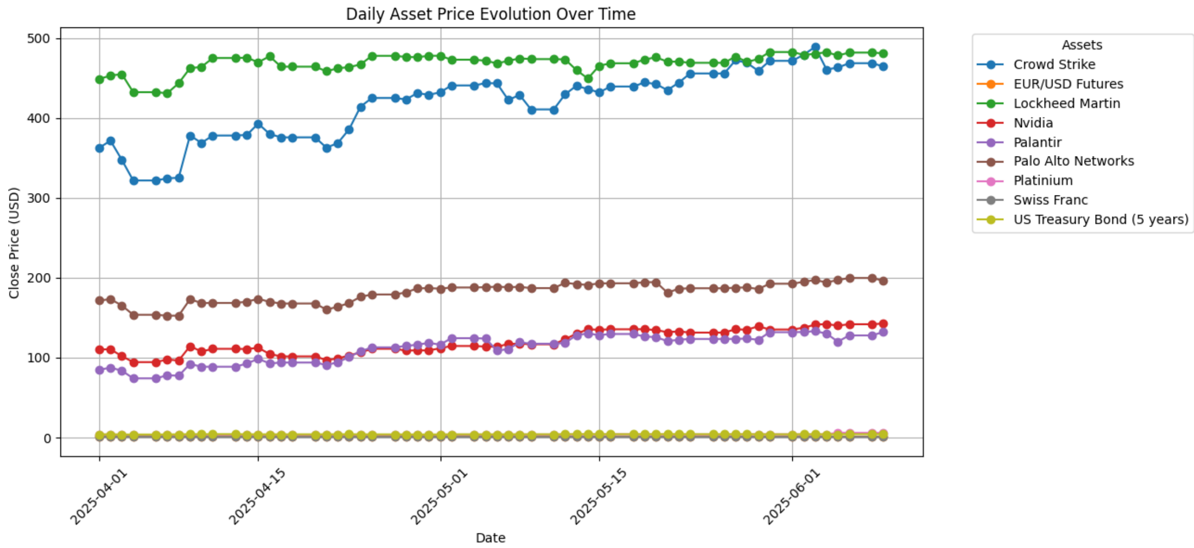
On April 22, Lockheed Martin announced Q1 2025 revenues of $18 billion, showing strong performance despite the global market instability [8]. On June 3, Lockheed Martin's CEO revealed plans for a "pilotless" F-35 fighter jet, using AI technology to enhance defense capabilities [9].

The U.S. Dollar weakened to a three-year low in April 2025, largely due to ongoing trade tensions and rising fiscal deficits [10]. The Euro appreciated by nearly 10% against the U.S. Dollar, aided by pro-trade policies from the European Union and economic recovery in the Eurozone [11].

In April, the Swiss Franc surged by 9% against the U.S. Dollar, as investors flocked to this safe-haven currency amidst increasing global uncertainties [12]. The Swiss National Bank (SNB) was under pressure to intervene and manage the rapid appreciation of the Franc, which could impact the Swiss export market.

In May, Platinum continued to experience a supply shortage for the third consecutive year, which supported prices despite moderate demand [13]. Platinum prices fluctuated between $880 and $1,060 per ounce due to market volatility and uncertain demand [14].

In May, 30-year U.S. Treasury yields surpassed 5% as concerns about fiscal policy and rising debt levels drove bond prices lower [15]. Analysts raised concerns about the stability of the U.S. bond market as yields continued to rise and demand for bonds decreased [16].



2.2 Why Being Optimistic

Looking ahead, there are several promising developments that support a positive outlook for my portfolio. While the past couple of months have brought their share of challenges, there are significant good news stories emerging that suggest the future might be brighter than anticipated for key assets in my portfolio.

CrowdStrike has strengthened its position as a leader in cybersecurity, particularly with its new collaboration with Microsoft to harmonize cyber threat attribution. This partnership is set to enhance CrowdStrike's database and its ability to respond to advanced cyber threats, positioning the company to benefit from increasing global demand for digital security solutions [17]. As cybersecurity becomes an ever-greater priority, this collaboration with one of the world's largest tech companies should bolster CrowdStrike's prospects, further improving its growth potential.

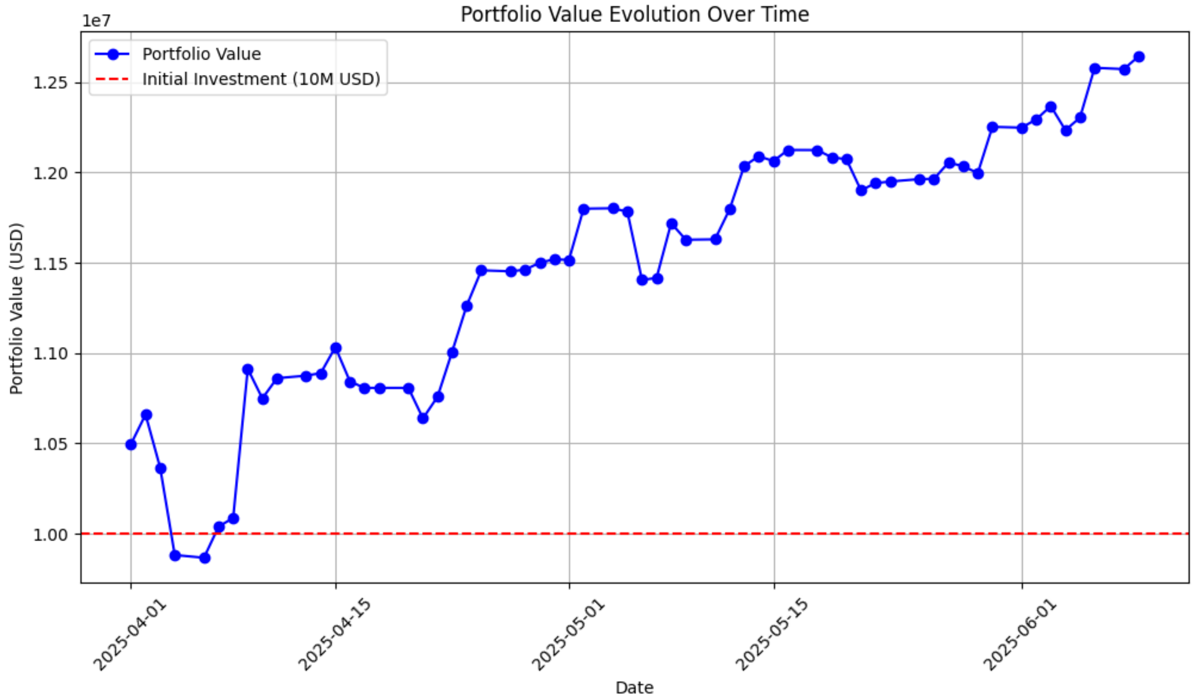
Lockheed Martin continues to show strong growth potential in the defense sector. Recent developments such as the successful integration of the GPS III satellite system with the U.S. Air Force's operational capabilities indicate that Lockheed is on the cutting edge of defense technology [18]. Additionally, the resolution of a labor dispute in April 2025, which secured new labor agreements, strengthens its operational stability and allows the company to focus on expanding defense contracts and new technological advancements [19]. Lockheed Martin has received a contract modification worth up to $1 billion from the U.S. Department of Defense to further develop the Conventional Prompt Strike (CPS) hypersonic weapon system. The system will be installed first on Zumwalt-class destroyers and later on Virginia-class submarines to provide rapid, non-nuclear strike capabilities [21].

Palantir's dominance in big data analytics and its strong position in both government and private sector contracts suggest a bright future. Notably, the company's involvement in a $795 million data deal with the Trump administration positions Palantir to play a significant role in data-driven defense strategies and national security [22]. With growing demand for big data analysis and AI-driven decision-making, Palantir's future in the market remains strong. Even though some critics have raised concerns about the ethical implications of its work, it continues to be a leader in the field, with an ever-growing clientele of public and private sectors.

These positive developments indicate that my portfolio's technology and defense-related assets are likely to experience continued growth. CrowdStrike's increasing influence in cybersecurity, Lockheed Martin's military advancements, and Palantir's expanding role in government contracting all reinforce the resilience and growth potential of my portfolio, despite market challenges. These positive news stories offer a glimpse into an optimistic future for my strategy, provided, of course, that these trends continue to develop as anticipated.

2.3 Comparing Reality and Projections

After investing the initial \$10,000,000, the portfolio has been tracked for 60 days, and the realized portfolio value now stands at \$12,640,813.37. This represents significant growth in the portfolio, but how does it compare to the projections I made when I set up the portfolio?



Based on my projections, I anticipated a 25.61% return over 60 days, driven by the high-growth potential of the technology sector, while also factoring in risk management through more stable assets like bonds and commodities. Now that we know the actual value, let's calculate the actual return:

$$\text{Actual Return} = \frac{\text{Final Portfolio Value} - \text{Initial Portfolio Value}}{\text{Initial Portfolio Value}} \times 100$$

$$\text{Actual Return} = \frac{12,640,813.37 - 10,000,000}{10,000,000} \times 100 = 26.41\%$$

In comparison to the expected return of 25.61%, the actual return of 26.41% is slightly higher, indicating that the portfolio has outperformed initial expectations. This is a solid result, especially considering the level of volatility I had anticipated. It's important to note that my portfolio did not experience the same level of market turbulence or unforeseen disruptions that might have led to more extreme fluctuations, which may explain why the return is a bit higher than expected. The diversification and risk management strategies I employed seem to have worked well in stabilizing the portfolio's performance.

2.4 Monte Carlo Simulation

2.4.1 Overview of Monte Carlo Simulation

Monte Carlo simulation is a powerful technique used to model the uncertainty and variability of financial outcomes based on historical data. In this section, I applied the Monte Carlo simulation to forecast the future value of my portfolio under a variety of scenarios, taking into account the historical performance of each asset. By running 10,000 simulations, I was able to generate a distribution of potential portfolio outcomes over the next 252 trading days (one year), reflecting a wide range of possible market conditions.

The key parameters used in the simulation are:

- Initial portfolio value: \$10,000,000
- Number of simulations: 10,000
- Forecast period: 252 trading days (1 year)
- Assets: A diversified mix of equities, currencies, commodities, and bonds, with the corresponding initial allocations based on my strategy.

The simulation assumes that asset returns follow historical patterns and that asset correlation and volatility remain stable over time. However, it is important to note that this method has limitations, especially in the face of unforeseen economic shocks or major geopolitical events that could affect market behavior.

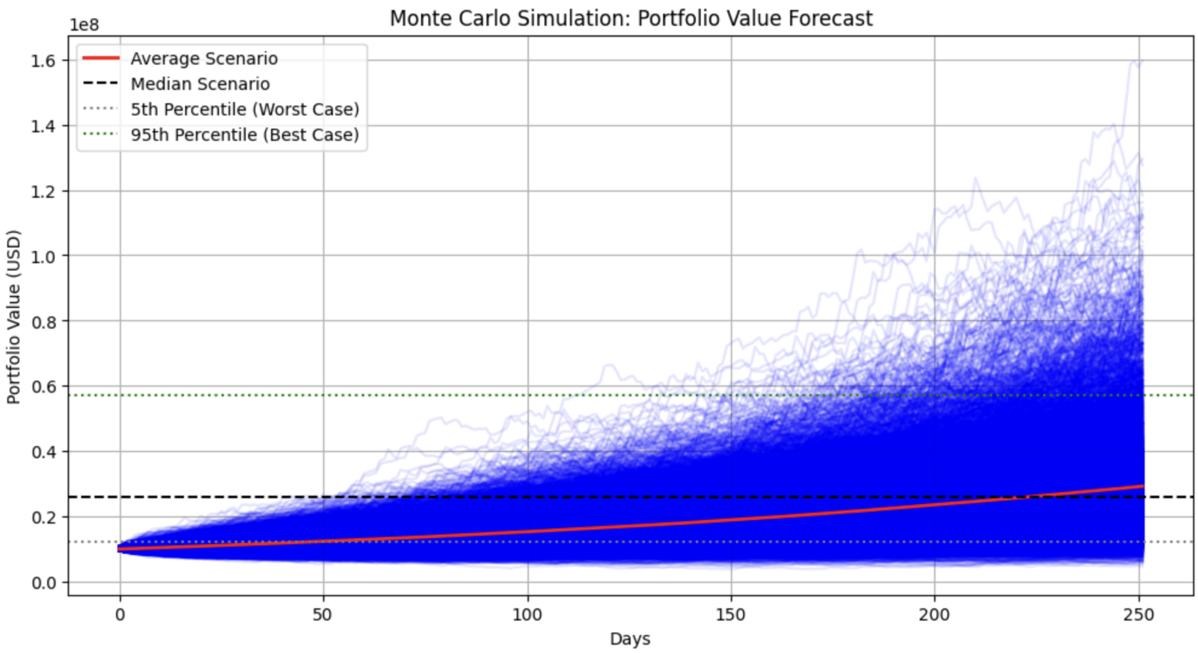
2.4.2 Simulation Results and Interpretation

The Monte Carlo simulation generated a range of potential future outcomes for my portfolio over the next year. The results indicate varying scenarios for portfolio growth, ranging from worst-case to best-case outcomes.

- **Worst-case scenario (5th percentile):** $12,146,488.86
- **Conservative scenario (25th percentile):** $19,155,169.10
- **Median scenario (50th percentile):** $26,119,469.90
- **Optimistic scenario (75th percentile):** $36,023,230.71
- **Best-case scenario (95th percentile):** $57,219,373.82

These scenarios offer a broad view of how the portfolio might perform under different market conditions. The median scenario (50th percentile) provides a realistic estimate of the portfolio's potential growth, while the best-case scenario reflects highly favorable market conditions. On the other hand, the worst-case scenario serves as a reminder that risks still exist, but with a 5th percentile value of $12,146,488.86, the portfolio still shows resilience.

The plot shows the results of the Monte Carlo simulation for the portfolio's value over the next 252 trading days. The blue lines represent the individual simulations, while the red line indicates the average scenario, and the dashed lines highlight the median, 5th percentile (worst-case), and 95th percentile (best-case) scenarios.



As seen in the chart, the portfolio exhibits significant upward growth in the best-case scenarios, while the worst-case scenarios reflect more modest growth or potential losses. These simulations provide valuable insights into the risk and return dynamics of the portfolio.

2.4.3 Conclusion of Monte Carlo Simulation

The Monte Carlo simulation has provided a detailed look at the potential outcomes for my portfolio over the next year. The results underscore the potential for significant growth in favorable market conditions, with the best-case scenario projecting a portfolio value of $57,219,373.82. However, it also highlights the risks involved, as the worst-case scenario shows a possible decrease to $12,146,488.86.

Despite these risks, the median scenario and optimistic scenario both suggest substantial growth for the portfolio, reinforcing my strategy of diversification across asset classes. The inclusion of stable assets like US Treasury Bonds and Swiss Francs provides a safety net in times of volatility, while my high-growth investments in technology stocks (such as CrowdStrike and Palantir) and commodities (like Platinum) offer significant upside potential.

3 Conclusion

This project has been a valuable learning experience, offering insight into the complexities of constructing and managing an investment portfolio. The process of building a MAST portfolio was both challenging and rewarding, providing a deeper understanding of how to balance risk and return across various asset classes. By applying the Modern Asset Selection Theory (MAST) model, I learned the importance of diversification in mitigating risk while still positioning the portfolio for growth in sectors with high potential.

3.1 How I Learned How to Analyze Sectors and Companies

Another key takeaway from this project was the importance of sector analysis and company evaluation. Choosing the right assets for my portfolio required more than just picking companies with strong financials. It involved understanding the macro environment, identifying global trends, and analyzing company performance within those trends.

For example, the decision to invest in cybersecurity stocks like Palo Alto Networks and CrowdStrike came from the growing importance of digital security in an increasingly connected world. I also learned to evaluate companies based on their growth potential and the volatility of their respective sectors. Similarly, my decision to include Platinum as a commodity was influenced by its role as a hedge against inflation and its connection to emerging clean energy markets.

Understanding these sectors and companies wasn't just about analyzing financial data. It was about identifying long-term trends that would drive growth, and being able to spot the right opportunities amidst a sea of possibilities.

3.2 Final Thoughts and Wrap-Up of the Project

In conclusion, this project has taught me how to build a robust portfolio strategy, how to analyze sectors and companies with a long-term perspective, and how to make informed decisions based on the broader economic context. I look forward to applying these skills in the future and continuing to refine my approach to portfolio management.

The complete dataset of my portfolio tracking is available for download : Portfolio CSV File

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