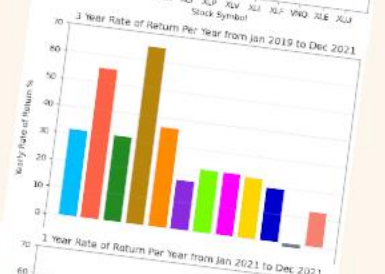
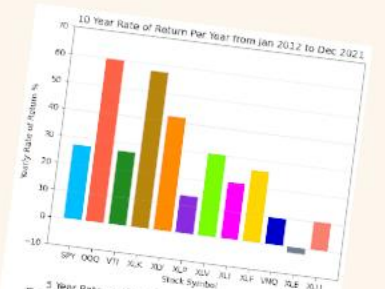
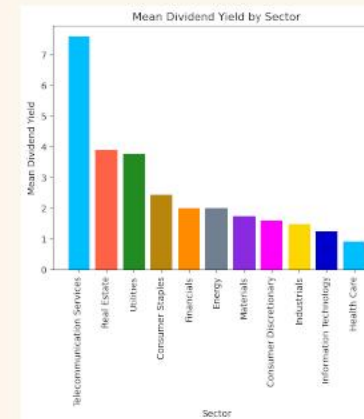
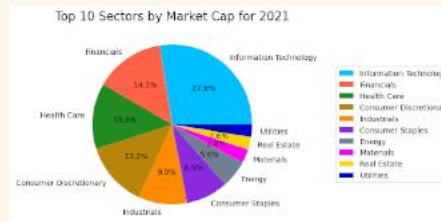
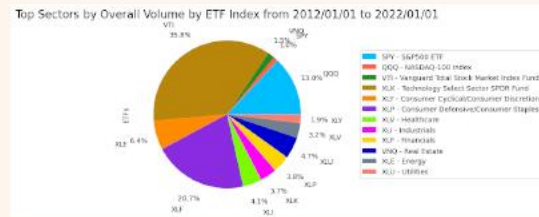
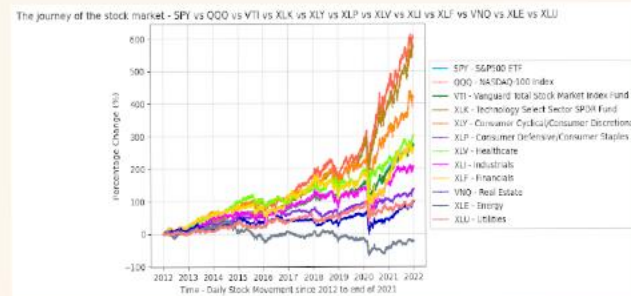


EDA- Stock Market Over 10 Years

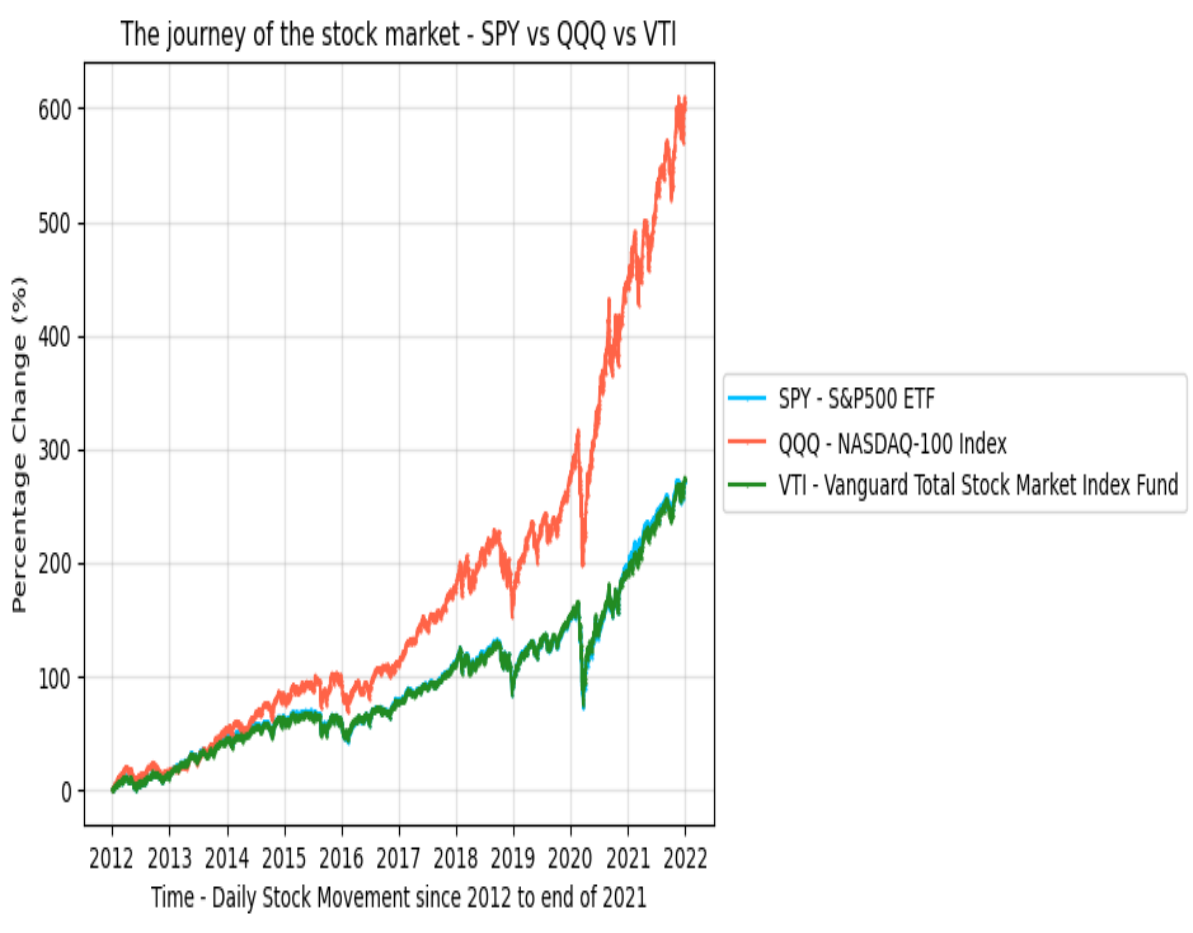
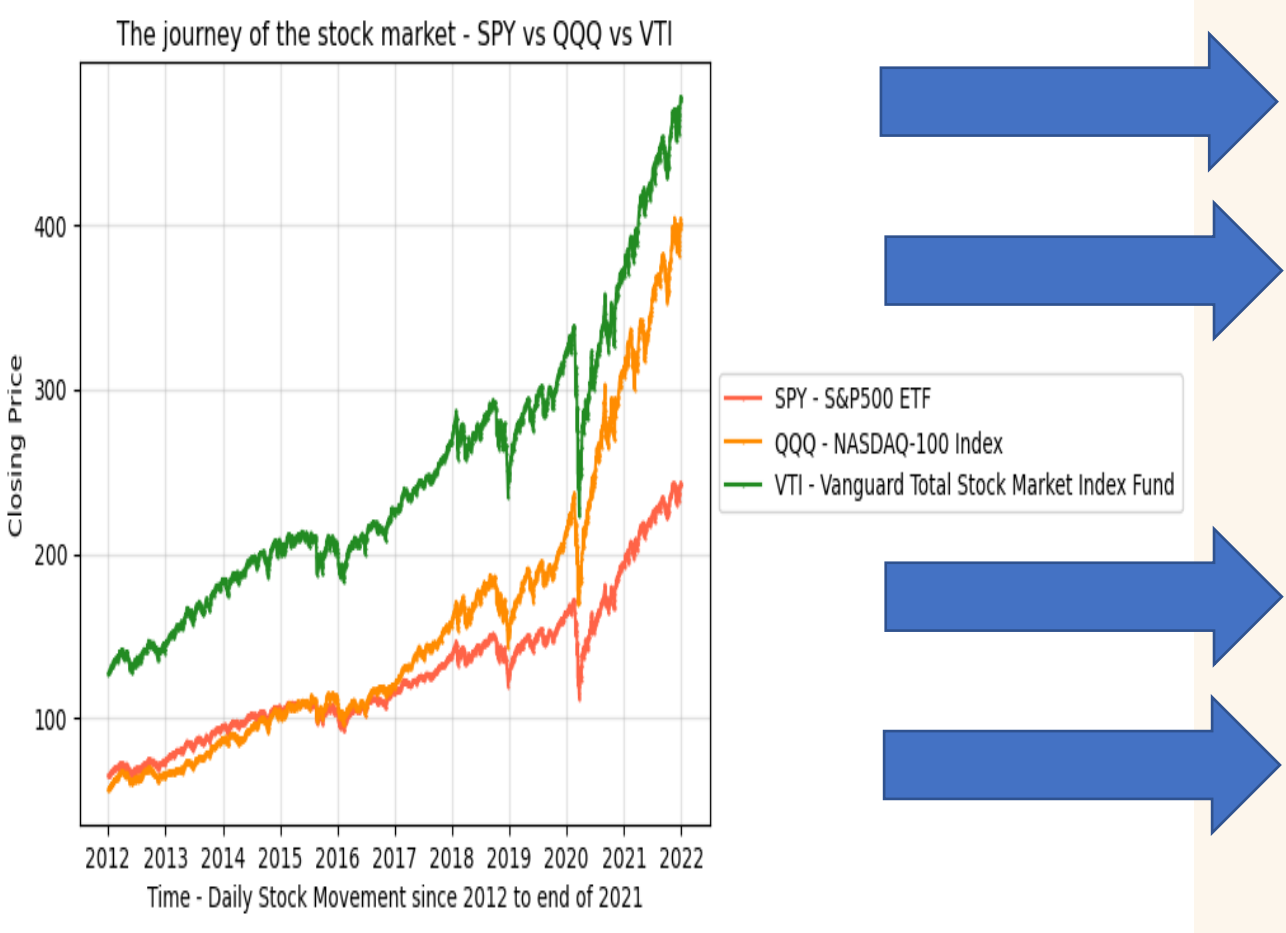
Exploring which sectors did best!



Stock Market performance over a 10 year period: SPY vs QQQ vs VTI.

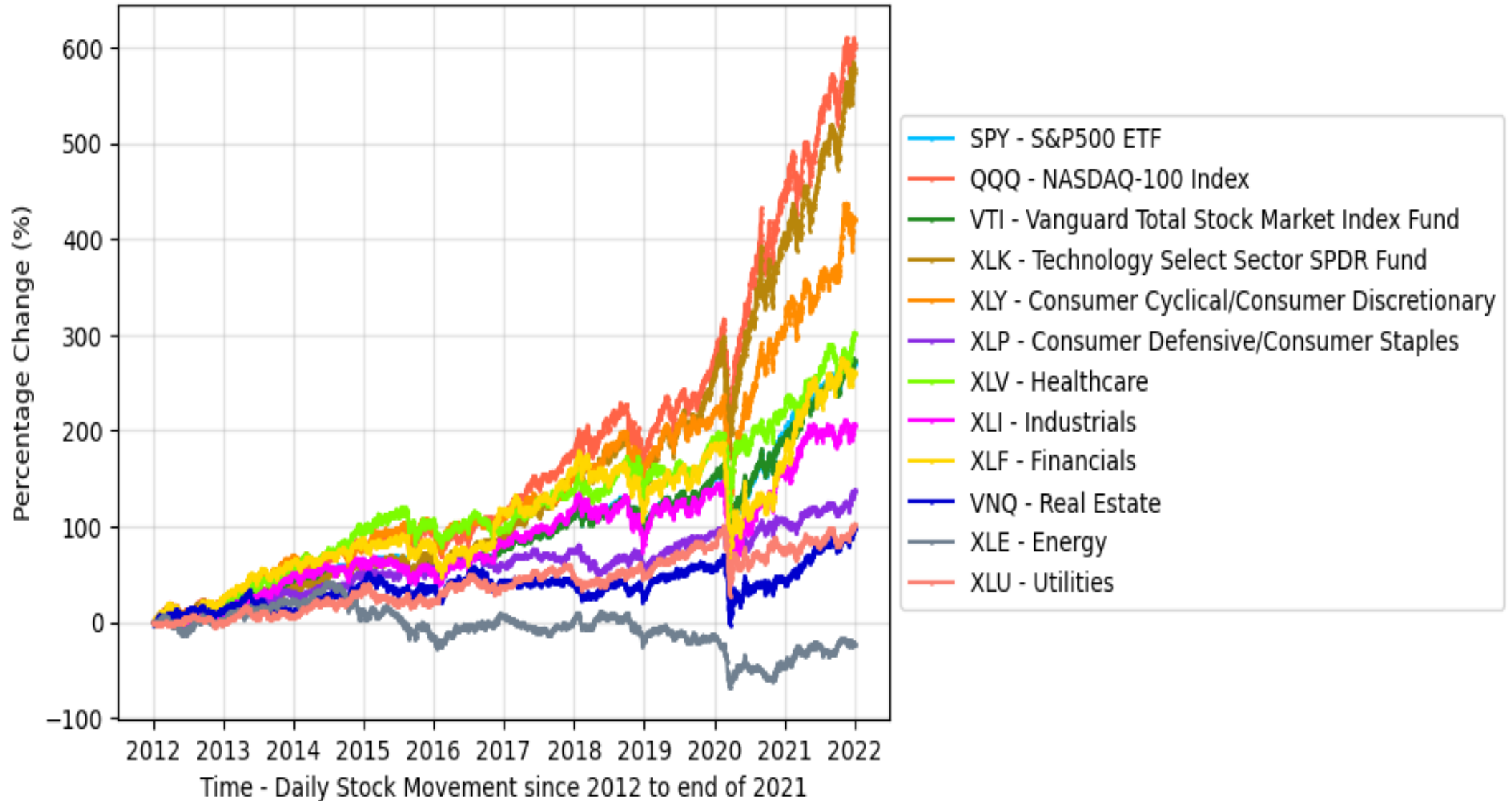
3 Most Popular ETFs representing the US Stock Market:

After Standardization:



Then we added in the other Indexes represented by ETFs and their performance over the last 10 years:

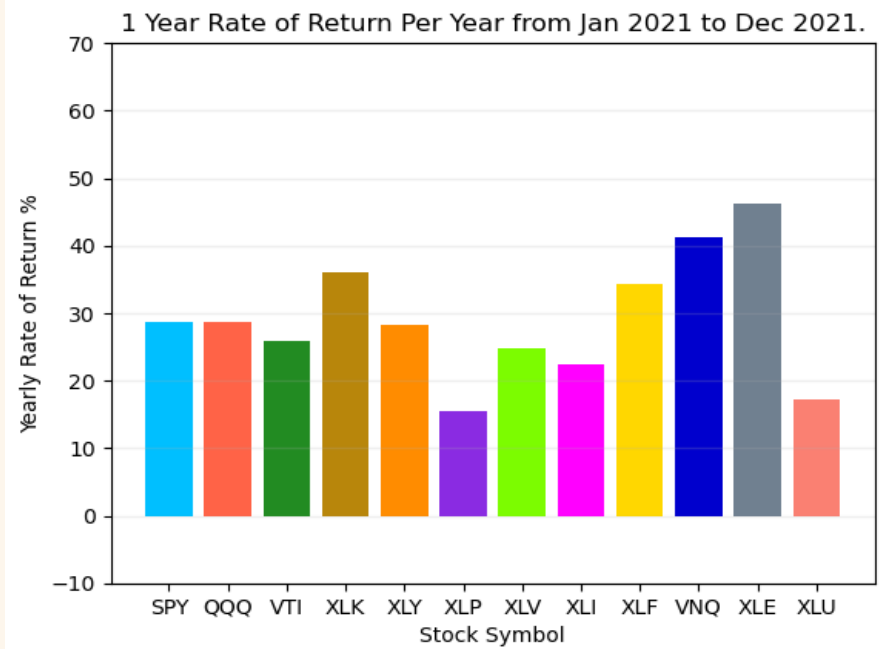
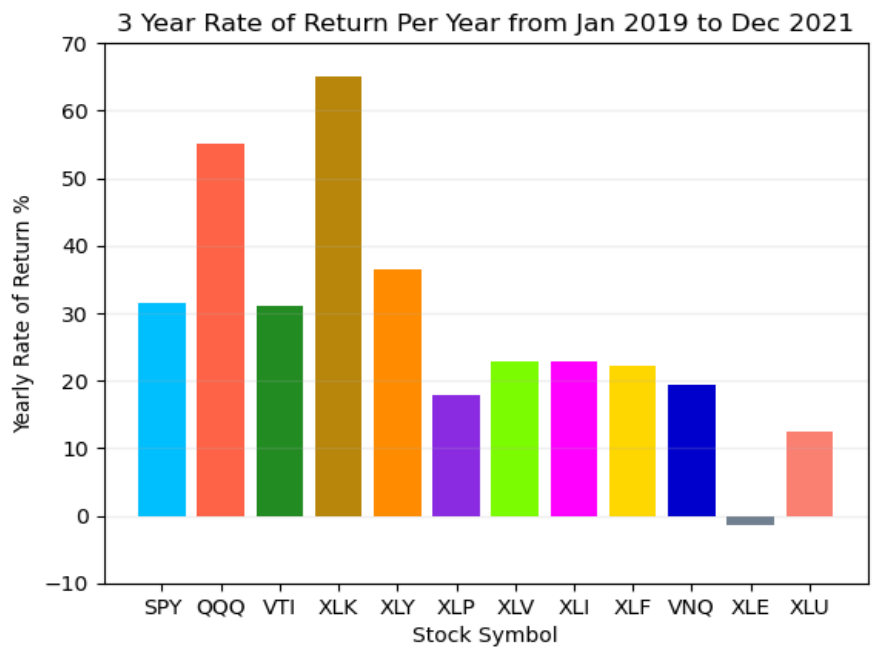
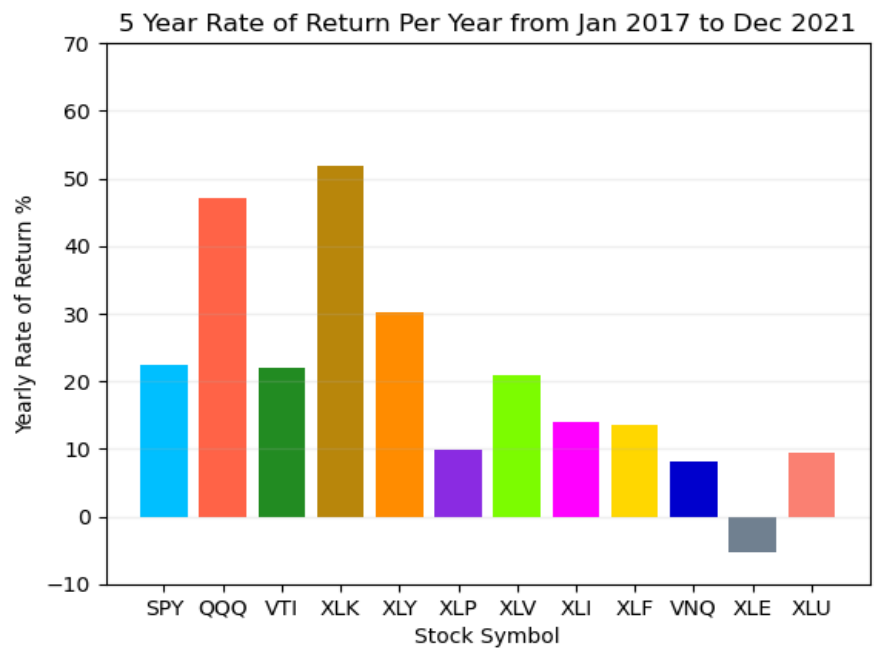
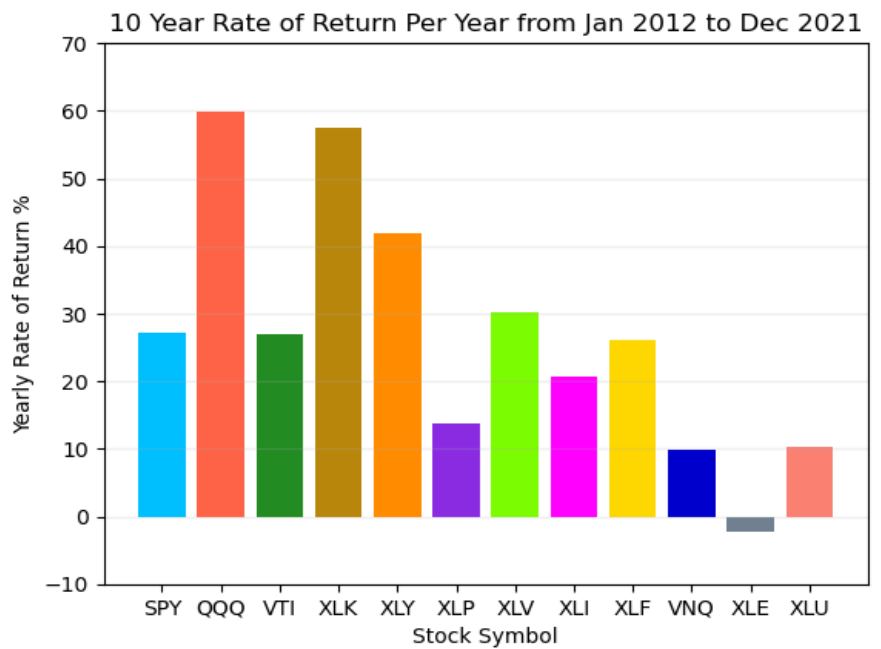
The journey of the stock market - SPY vs QQQ vs VTI vs XLK vs XLY vs XLP vs XLV vs XLI vs XLF vs VNQ vs XLE vs XLU



We then created a Dataframe to show the Rate of Return for all of our Stock Indexes over 10, 5, 3, 1 Years:

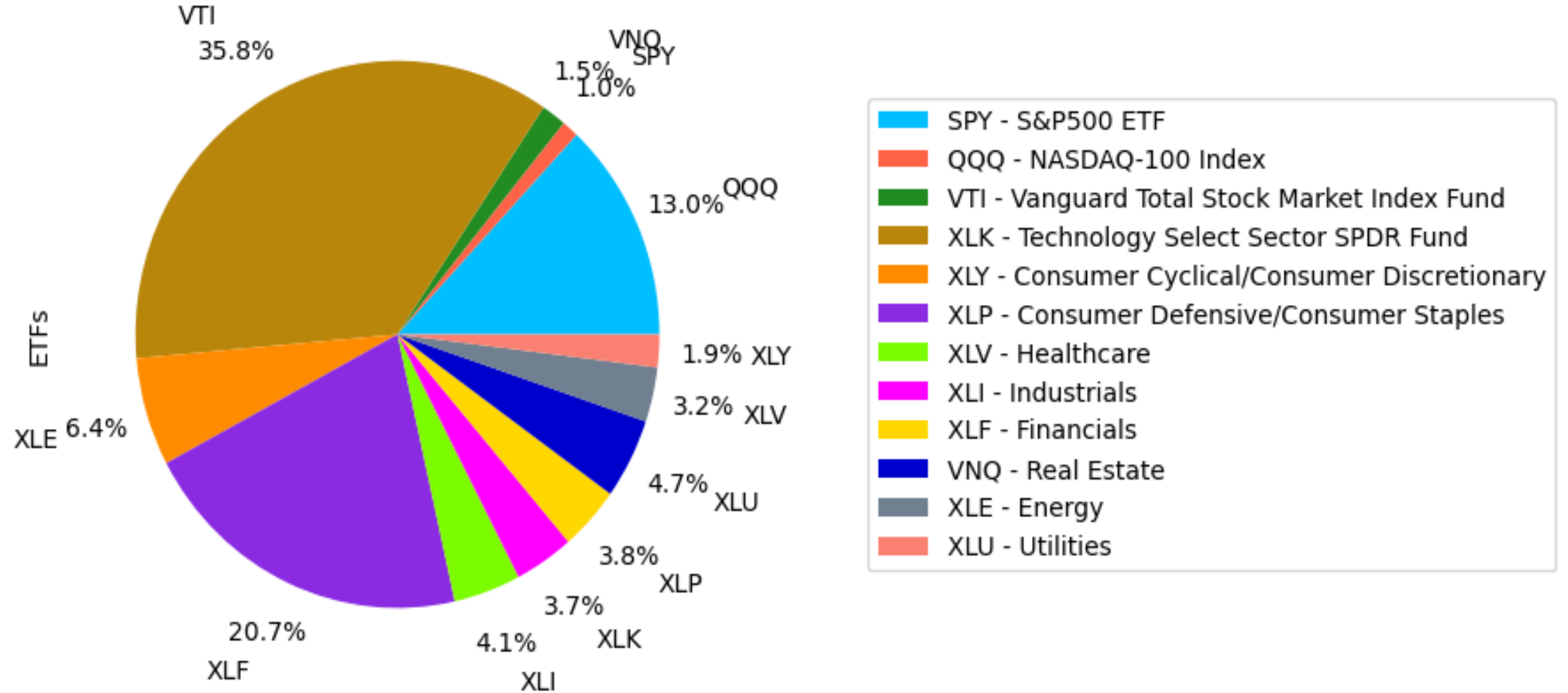
| | 10 Year Yearly Rate of Return | 5 Year Yearly Rate of Return | 3 Year Yearly Rate of Return | 1 Year Yearly Rate of Return |
|-----|-------------------------------|------------------------------|------------------------------|------------------------------|
| SPY | 27.251764 | 22.496309 | 31.496114 | 28.788736 |
| QQQ | 59.920913 | 47.159013 | 55.183996 | 28.625007 |
| VTI | 27.024997 | 21.873049 | 31.169354 | 25.835205 |
| XLK | 57.365362 | 51.906531 | 65.081789 | 35.942137 |
| XLY | 41.954259 | 30.230958 | 36.489073 | 28.239873 |
| XLP | 13.755392 | 9.824019 | 17.878729 | 15.572541 |
| XLV | 30.093911 | 20.873221 | 22.930393 | 24.736612 |
| XLI | 20.678455 | 14.01157 | 22.855927 | 22.451097 |
| XLF | 26.034896 | 13.591397 | 22.103918 | 34.28473 |
| VNQ | 9.834159 | 8.113414 | 19.307561 | 41.182919 |
| XLE | -2.1886 | -5.262878 | -1.381693 | 46.206537 |

We then graphed those results for 10, 5, 3 and 1 year Rate of Return for all of our Stock Indexes using a Bar Chart:

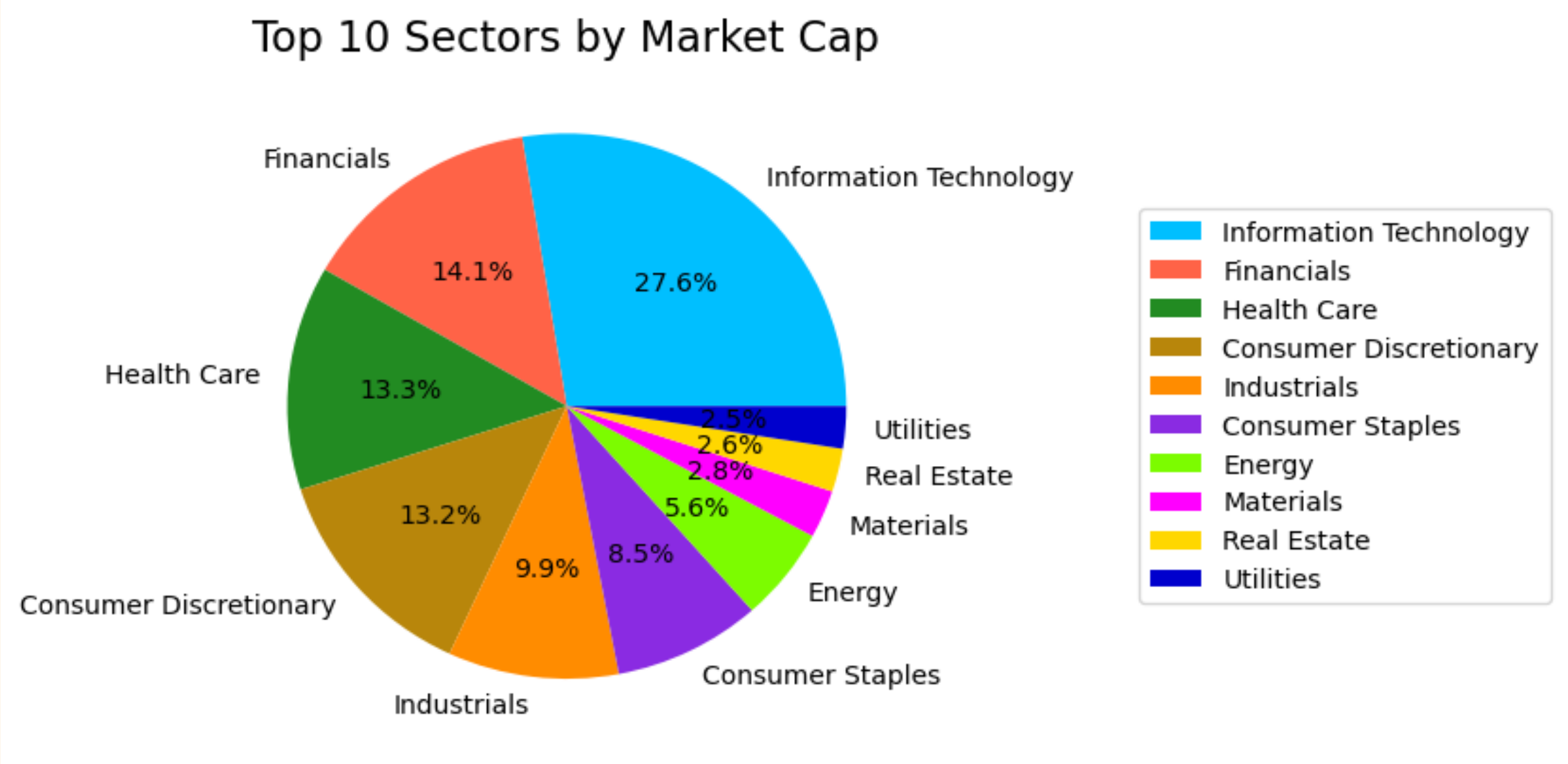


Top 10 Industries by Volume:

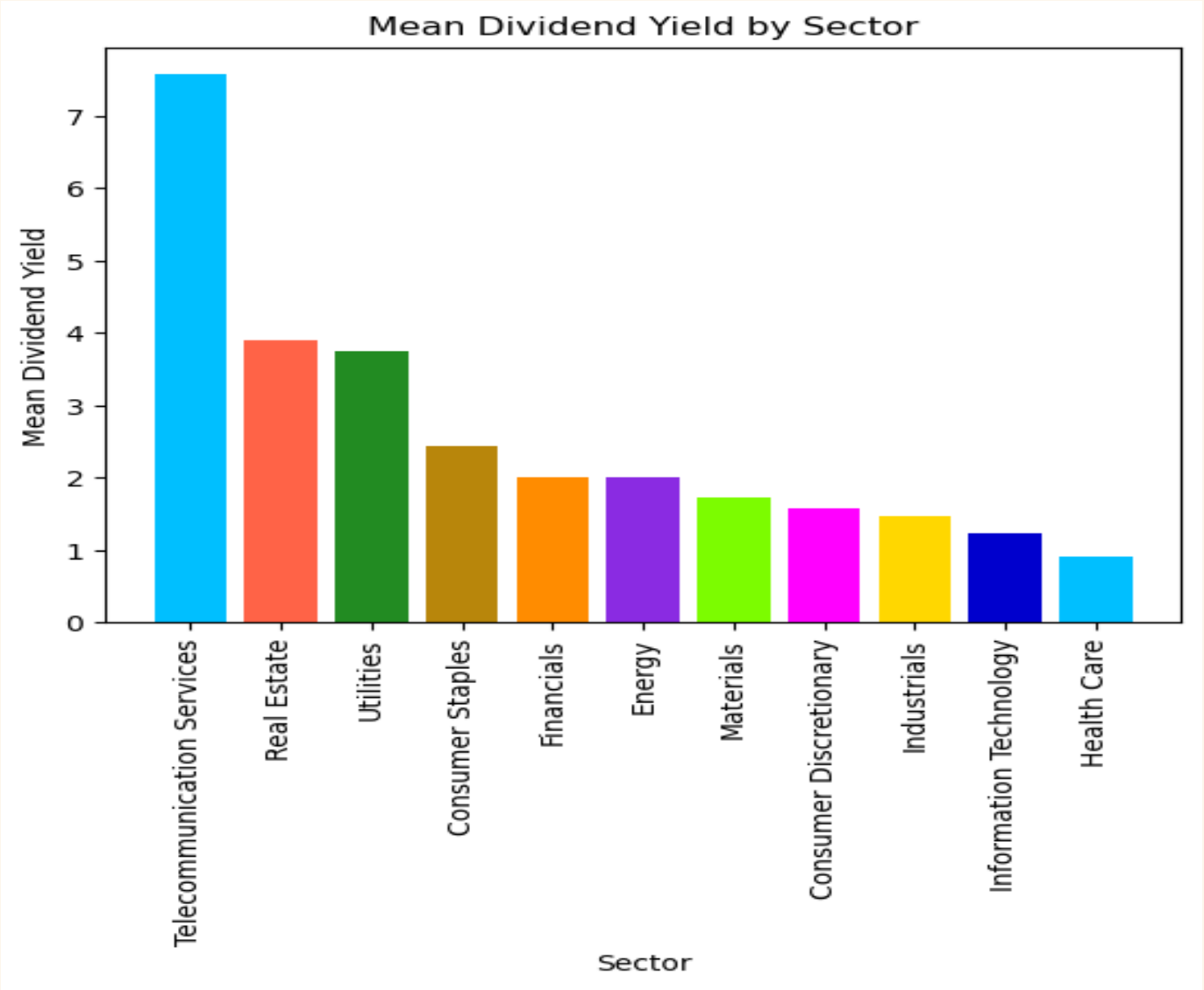
Overall Volume by ETF from 2012/01/01 to 2022/01/01



Top 10 Sectors by Market Cap:



Mean Dividend Yield by Sector:



Project Learnings and Questions?