

Portfolio Analysis report

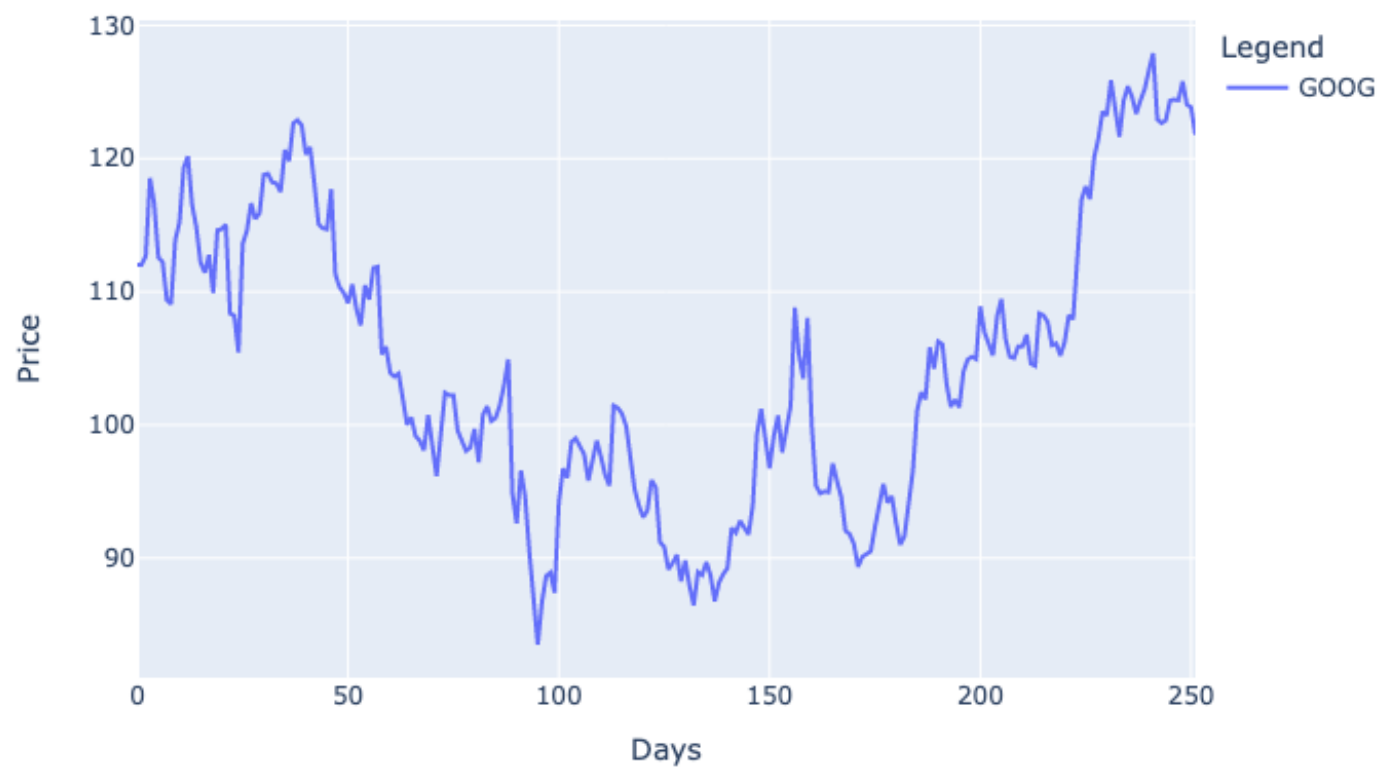
Introduction

This technical report analyses the portfolio consisting the assets evaluated over a period of 252 days:

1. GOOG

Close Prices

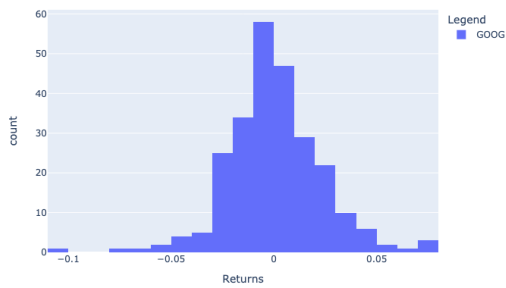
Close prices of portfolio assets



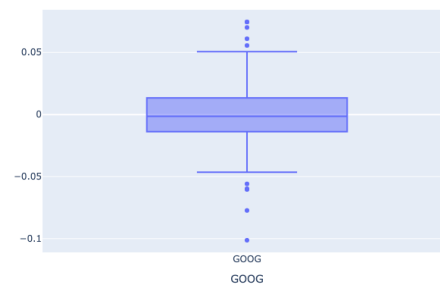
Log returns

The Log returns can be used to understand whether the returns of each of the stocks of the portfolio is gaussian or not and also helps us understand the shape of the returns

Log returns of: GOOG

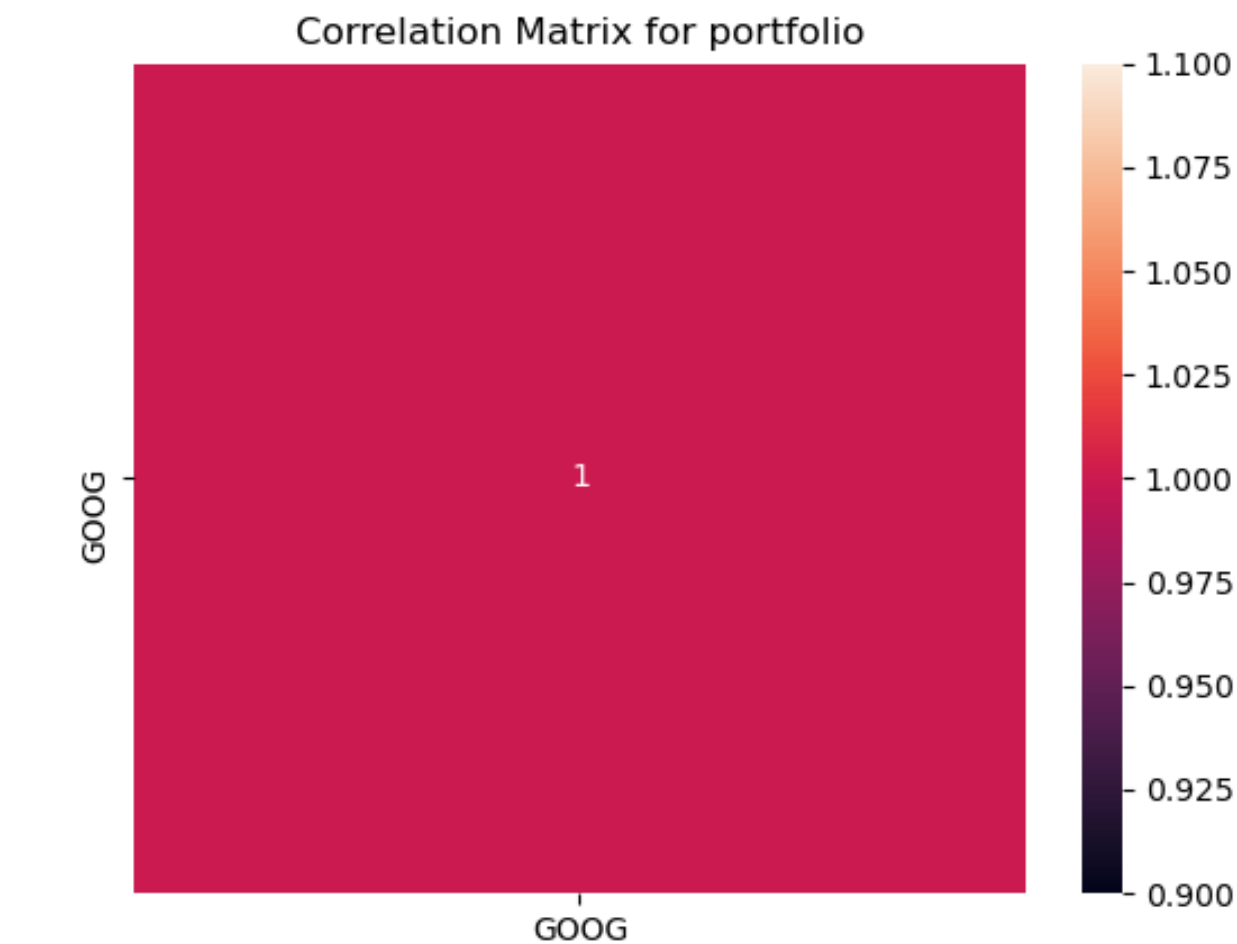


Box and whisker plot of: GOOG



Correlation Matrix

The Correlation matrix tells us how the movement of one stock/asset in the portfolio affects the movement of another stock/asset in the portfolio.



Volatility

The Volatility of a stock is an important thing to look at as it gives investors an idea about the risk associated with the investment.

Volatility of portfolio assets with 60 as period



Sharpe Ratio

The Sharpe Ratio of a stock/asset tells us wheather the returns provided by an investment are worth the volitivity. Investors consider a Sharpe ratio greater than 1 to be pretty good.

Sharpe Ratio of portfolio assets with 60 as period



The Annualized Sharpe Ratios for the assets in the portfolio is:

The Annualized Sharpe Ratio for: GOOG is 0.22570914539577325

Sortino Ratio

The Sortino Ratio of a stock/asset is very similar to the Sharpe Ratio except it only considers downside volatility and ignores any upside volatility.

Sortino Ratio of portfolio assets with 60 as period



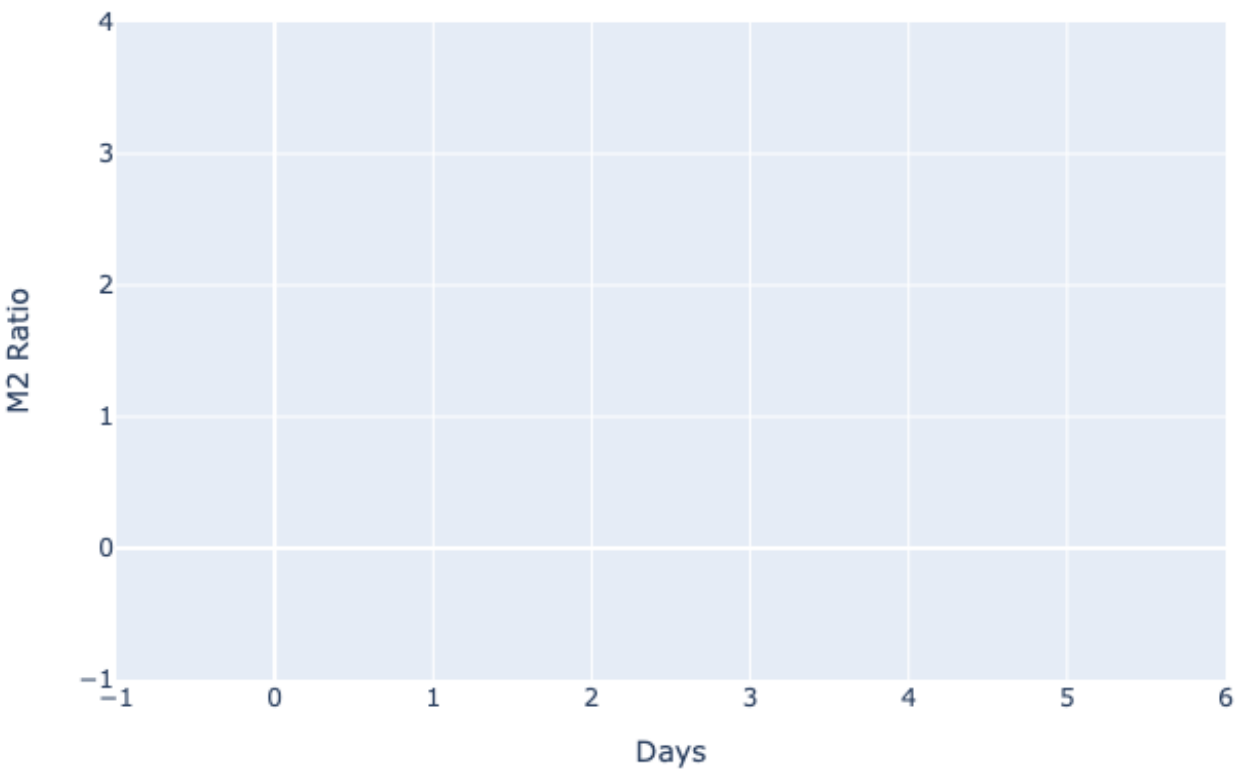
The Annualized Sortino Ratios for the assets in the portfolio is:

The Annualized Sortino Ratio for: GOOG is 0.18246309768377458

M2 Ratio

The M2 ratio measures the returns of the portfolio, adjusted for the risk of the portfolio relative to that of some benchmark.

M2 Ratio of portfolio assets with 60 as period



Efficient Frontier

The Efficient Frontier consists of several portfolios that are generated. The Optimal Risk to return portfolio is the one with the maximum Sharpe Ratio which is denoted by the green dot.

Portfolio Optimisation with the Efficient Frontier



Minimum Volatility Portfolio Information

Returns:	8.399880074059386%
Volatility:	37.215506085632825%
GOOG weight:	100.0%

Max Sharpe Ratio Portfolio Information

Returns:	8.399880074059386%
Volatility:	37.215506085632825%
GOOG weight:	100.0%