Stock Market Trading Strategies Problem Statement [Vishal Rastogi]

How can Data Science be leveraged to evaluate and develop trading strategies, which can outperform the market returns for year 2022 for selected US Stocks and ETFs in 3 months

H

1 Context

Stock market trading is always tricky and several factors play a role at macro and micro level.Investors and traders use different strategies to maximize their profit. In this project, I will develop strategies based on technical analysis and machine learning and evaluate them by back testing to see which strategies are more profitable.

2 Criteria for success

Successfully develop models based on bollinger bands, MACD, Relative Strength index, neural network and reinforcement learning in 3 months

3 Scope of solution space

Daily closing price data for stocks and etfs available at Yahoo Finance API will be used for developing and back testing different models

4 Constraints within solution space

- **Fluctuation of stock price with in day could not be considered**
- **Stock prices are affected by economic factors like inflation, bond prices and federal interest rates and may adversely impact the trading models.**

5 Stakeholders to provide key insight

- **Stock Analysts**
- **Economists**

6 Key data sources

Daily stock price data available at Yahoo Finance