Capstone Project

StockMarket Predictions Final Report

Wayne H Lee

A hand pointing at a graph

AI-generated content may be incorrect.

**Executive Summary**

The goal of this project is to determine whether a model can be developed to predict the days on which a stock is expected to rise—using historical data—with better results than buying on random days. Ideally, if a trader buys only on days indicated by the model, they would expect a net gain over losses.

**Expected Results**

It is expected that some momentum exists in the market based on fundamentals, so some correlation should be observable in at least certain time frames for some stocks.

**Model Outcomes or Predictions**

Identify the type of learning (classification or regression) and specify the expected output of your selected model. Determine whether supervised or unsupervised learning algorithms will be used.

**Data Acquisition**

The deliverable at this step is to identify what data you plan to acquire and use with your model. For the best results, data should come from multiple sources and your analysis for including specific data should be clear. Please provide a clear visualization to assess the data’s potential to solve the problem as well.

**Data Preprocessing/Preparation**

For this deliverable, you are tasked with detailing how you cleaned the data for your notebook.

1. What techniques did you use to ensure your data was free of missing values, and inconsistencies?
2. How did you split the data into training and test sets?
3. Please include any necessary analysis and encoding steps you took as well.

**Modeling**

For this deliverable, please document your **selection of machine learning algorithms** that you selected for your problem statement from the first deliverable.

**Model Evaluation**

Share your model evaluation here. What types of models did you consider for your problem (classification, regression, unsupervised)?  Articulate the **evaluation metrics** you used and how you determined which model was most optimal for your problem.