

Stock Price Prediction

Abstract

Stock market prediction has always been a complex problem due to market volatility and external influences such as global events and economic policies. This project focuses on predicting stock prices using historical stock market data, technical indicators, and machine learning techniques.

The dataset consists of historical stock prices, trading volumes, moving averages, and other financial indicators. The machine learning algorithms used in this project include Support Vector Machines (SVM), Long Short-Term Memory (LSTM) networks, and Random Forest Regression.

The preprocessing stage includes handling missing values, normalizing the data, and performing feature selection. The model is trained and tested using different stock market datasets, and the evaluation metrics include Mean Squared Error (MSE) and R-squared value.

The ultimate goal is to create a predictive model that can provide insights to investors, helping them make data-driven investment decisions. This project can be further extended by integrating sentiment analysis from financial news articles and social media platforms.