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Literature Review

The paper "Stock Market Prices Prediction using Random Forest and Extra Tree Regression" explores the application of machine learning algorithms, specifically Random Forest and Extra Tree Regressors, to predict stock market prices. The results indicate that Decision Tree and Random Forest Regressors outperform other models in terms of prediction accuracy. The study highlights the potential of using machine learning techniques for stock price prediction and suggests that these methods can handle large datasets efficiently, providing a robust tool for financial forecasting. It provides a view of using Random Forest in machine learning to predict closing price.

The paper "Stock Closing Price Prediction using Machine Learning Techniques" investigates the application of Artificial Neural Network (ANN) and Random Forest (RF) models to predict the closing prices of stocks. By utilizing financial data such as Open, High, Low, and Close prices, the researchers created new variables to enhance the predictive power of their models. Evaluated using Root Mean Square Error (RMSE) and Mean Absolute Percentage Error (MAPE), the results indicated that ANN outperformed RF in terms of prediction accuracy. The paper concludes that incorporating additional data sources, such as financial news, could further improve prediction accuracy, paving the way for more robust financial forecasting tools.

The paper "A Machine Learning Approach for Stock Price Prediction" by Carson Kai-Sang Leung, Richard Kyle MacKinnon, and Yang Wang explores the use of structural support vector machines (SSVMs) to predict stock price movements. By representing companies in the information technology sector as nodes in a graph structure and using an SSVM to classify these nodes, the study aims to determine whether stock prices will move up or down. Experimental results demonstrate the practicality and effectiveness of this machine learning method, achieving an accuracy rate higher than 78% on training data. It provides insight into the expected accuracy of the model.

"Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow" by Aurélien Géron is a comprehensive guide designed to introduce readers to machine learning and deep learning using popular Python frameworks. The book is divided into two main parts: the fundamentals of machine learning and neural networks, and deep learning. It covers a wide range of topics including data preprocessing, model selection, training, and evaluation. Through hands-on examples and practical exercises, the book helps readers to own the knowledge and tools to implement and deploy machine learning models effectively, which will be used in the project.