A COMPREHENSIVE REVIEW OF MACHINE LEARNING TECHNIQUES FOR STOCK MARKET PREDICTION

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In view of the way different types of companies are playing their roles in the current market, we have come up with a simple solution to predict their stocks with the help of ML and sentiment analysis that is called Stock Price Prediction. So, we have using here different types of datasets of multiple companies and extracting data and analyse the actual price which companies are trending in marketplace. The Machine learning technology is the perfect gift for human being for the future predictions and Machine learning technology is a very good technology which helps a lot in making the future better as with its help we are analysing the ongoing turmoil in the market. Machine learning has been used to predict stock prices in future using various datasets from multiple companies. Techniques like ELR-ML, regression, and LSTM models are used to analyse market fluctuations. This paper investigates various machine learning algorithms for predicting stock prices in the Indian inventory market context. Five algorithms are investigated, including KNN, Linear Regression, SVR, LSTM, and Decision Tree Regression. A study on a dataset from 12 leading companies reveals that Deep Learning algorithms, particularly Long Short-Term Memory, outperform other techniques in accuracy. Future research should focus on unique sources of information, AI techniques, and improving forecasting indicators' efficiency. LSTM models showed a 23.4% mean absolute error reduction compared to traditional forecasting approaches.

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