

Enhancing Stock Market Predictions through Artificial Intelligence

Dnyandev Sopan Musale

Lecturer, Department of Computer Technology
Amrutvahini Polytechnic, Sangamner, India

Abstract: *This paper explores the integration of Artificial Intelligence (AI) techniques in stock market analysis and prediction. Traditional methods have limitations in capturing the complexities of market dynamics, leading to inaccuracies in forecasting. By leveraging AI algorithms such as machine learning, deep learning, and natural language processing, significant advancements have been made in predicting stock trends, volatility, and optimal trading strategies. This paper reviews various AI models and approaches used in stock market analysis, discusses their strengths and limitations, and presents case studies demonstrating their effectiveness. Furthermore, it discusses the ethical implications and challenges associated with AI in stock market prediction, including data privacy concerns and algorithmic biases. Ultimately, this paper aims to provide insights into how AI can revolutionize stock market analysis and empower investors with more accurate decision-making tools.*

Keywords: Natural Language Processing (NLP), Market surveillance, Algorithmic bias, Predictive Modeling.

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