

AI Enabled Stock Analysis

Ganesh Ajegaonkar¹, Mayuri Choudhary², Sakshi Mahadik³, Rahul Mali⁴, Dr. Sanjaykumar Pingat⁵

Students, Department of Computer Engineering^{1,2,3,4}

Professor, Department of Computer Engineering⁵

Smt. Kashibai Navale College of Engineering, Vadgaon, Pune, India

ganeshajegaonkar@gmail.com, mayurichoudharys05554@gmail.com

mahadiksakshi50@gmail.com, rrmali4250@gmail.com

Abstract: *The financial markets have experienced a significant transformation with the advent of artificial intelligence (AI) and machine learning (ML) technologies. This survey paper presents an extensive review of the methodologies, techniques, and algorithms employed in AI-enabled stock analysis. We explore various AI models, including machine learning (ML), natural language processing (NLP), and deep learning (DL), that are leveraged to predict stock prices, analyze market trends, and identify investment opportunities. The paper also highlights the key challenges in data handling, feature engineering, and real time market prediction, while providing a critical assessment of current research and emerging trends in this domain. Additionally, we examine the practical applications of these technologies in financial markets and the impact of AI on stock trading strategies. Finally, the paper identifies future research directions and the potential of AI to further revolutionize stock market analysis.*

Keywords: Stock Analysis, Artificial Intelligence, Machine Learning, Deep Learning, Natural Language Processing, Financial Markets, Stock Prediction, Data Science

