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Research on Financial Data Prediction Algorithm Based on Deep Learning

Siddhant Jadhav, Hritik Mali, Ashish Bhoria

Sinhgad Institute of Technology, Lonavala, India

Abstract*: Financial market forecasting remains a challenging research area due to the complex nature of financial markets and the inherent difficulty in predicting market trends. This paper explores the application of deep learning and data mining techniques to improve the accuracy of financial market predictions. It addresses the nonlinear, nonstationary, and multiscale characteristics of financial time series data, as well as the challenges posed by noisy trading components. The paper also discusses the significance of forecasting in the context of China's capital market and the growing interest of individual investors in foreign exchange trading. It emphasizes the need for scientific forecasting methods and theories to guide investment decisions in this volatile market.*

Keywords: Financial market forecasting

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