Machine Learning-based Stock Market Forecasting using Recurrent Neural Network

Publisher: IEEE

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Abstract:
In today's world where trading became very common. Observing the trends and stock market predictions has become more and more popular. Forecasting the future value of a c... **View more**

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Abstract:
In today's world where trading became very common. Observing the trends and stock market predictions has become more and more popular. Forecasting the future value of a company's stock in the stock market is known as making a prediction. Stock market investment strategies are very complex and need lots of data and is a system of equities, in which you can purchase and sell stocks. There are two primary types of financial markets: primary and secondary markets. Simple machine learning algorithms have low accuracy which can't be used to predict stocks. The models being used in this study are: LSTM (Long Short-Term Memory) and RNN (Recurrent Neural Network). The model is trained and evaluated with various input data sizes, and the graphical outcomes. Results of both the models are compared and found that RNN performed the best with lower RMSE, MAE and MSE values of 0.95, 1.34 and 2.4 respectively. RNN differs from most previous work in that it learns a much richer modeling structure, allowing it to recognize patterns more accurately in a sequence of data than simpler models.

Published in: 2

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ISBN Informa

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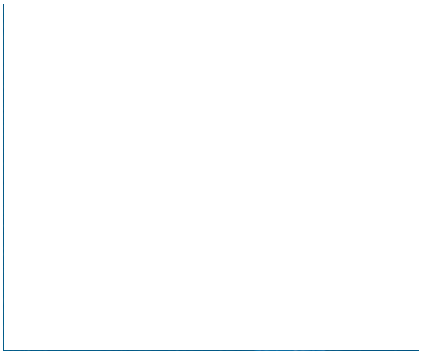
Keywords

Metrics



2022 3rd International Conference on Issues and Challenges in Intelligent Computing Techniques (ICICT)
Published: 2022

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