UNIVERSITI TEKNOLOGI MARA

PREDICTION OF FUTURE STOCK PRICE USING RECURRENT NEURAL NETWORK

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BACHELOR OF SCIENCE (Hons.)
MANAGEMENT MATHEMATICS

JULY 2022

Universiti Teknologi MARA

Prediction of Future Stock Price Using Recurrent Neural Network

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Report submitted in fulfillment of the requirements for Bachelor of Science (Hons.) Management Mathematics Faculty of Computer and Mathematical Sciences

July 2022

SUPERVISOR'S APPROVAL

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2019207356

This report was prepared under the direction of supervisor, Nor Hayati Binti Shafii. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Science (Hons.) Management Mathematics.

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JULY 14, 2022

ABSTRACT

The stock market can affect businesses in a variety of ways. The rise and fall of a company’s share price values affects its market capitalization and thus its market value. Forecasting stock market returns is difficult because financial stock markets are unpredictable and non-linear. The market trend, supply and demand ratio, global economy, public opinion, and a variety of other factors may all influence the price of a particular stock. With the advent of artificial intelligence and increased processing power, programmable prediction techniques have proven to be more effective in predicting stock values. This study proposed a Recurrent Neural Network (RNN) model that uses a deep learning machine to forecast Malaysian Pacific Industries' (MPI) stock price in the future. The five stages were data analysis, dataset preparation, network design, network training, and network testing. The accuracy of the model examined is determined by the mean square error (MSE) and root mean square error (RMSE), which are 1.24 and 1.12, respectively. The predicted closing price is compared to the actual closing price. Finally, it is proposed that this approach be used to forecast other volatile time-series data.

Keywords: Stock Market Prediction, Recurrent Neural Network, Stock Price

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