ABSTRAK

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Judul	:	Optimasi Prediksi Cryptocurrency Menggunakan Pendekatan Deep Learning

Studi tentang prediksi nilai cryptocurrency. Cryptocurrency adalah mata uang digital terdesentralisasi yang diatur oleh pemerintah pusat. Karena cryptocurrency sangat fluktuatif, analisis diperlukan sebelum menggunakan cryptocurrency untuk meminimalkan kerugian. Penelitian ini melakukan perbandingan antara model LSTM dan algoritma optimasi seperti Adam dan RMSProp. Metode penelitian terdiri dari metode Long Short Term Memory yang dioptimasi dengan Adam Optimizer dan dievaluasi dengan Root Mean Square Error (RMSE). Akibatnya, prediksi nilai error sebesar 0.39086682351151353 merupkan nilai error yang kecil sehingga mendekati nilai aktual. Sedangkan nilai error 0.43361274383086357 menggunakan Root Mean Square Propagation (RMSProp) lebih besar sehingga kurang akurat. Kombinasi antara algoritma LSTM dan Adam dapat melakukan prediksi dan mengoptimasi data dengan akurat.

Kata kunci:
Cryptocurrency, Long Short Term Memory, Adam, Root Mean Square Error, Root Mean Square Error Propagation

ABSTRACT

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The study of predicting the value of cryptocurrencies. Cryptocurrency is a digital decentralized currency that is regulated by a central government. Since cryptocurrencies are highly volatile, analysis is required before using cryptocurrencies to incur losses. This study makes a comparison between the LSTM model and optimization algorithms such as Adam and RMSProp. The research method consists of the Long Short Term Memory method which is optimized by Adam Optimizer and optimization by Root Mean Square Error (RMSE). As a result, the predicted error value of 0.39086682351151353 is a small error value so that it is close to the actual value. While the error value of 0.43361274383086357 using the Root Mean Square Propagation (RMSProp) is larger so it is less accurate. The combination of LSTM and Adam algorithms can predict and optimize data accurately.

Key words:
Cryptocurrency, Long Short Term Memory, Adam, Root Mean Square Error, Root Mean Square Error Propagation