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Cryptocurrency Price Prediction Model Development Using Machine Learning Algorithms

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Cryptocurrencies are digital currencies that exist in a virtual space and every year more and more financial institutions do include them in their portfolio. These digital currencies are not controlled by central banks. Investors are increasingly interested in them because of their highly volatile prices, which lead to a higher return potential. These are the main factors why cryptocurrencies are driving the development of a price prediction model. Machine learning is one of the tools that allows the development of this model for cryptocurrencies. The outcome of this study is to apply machine learning algorithms to develop an accurate price prediction model for BTC and ETH currencies. To achieve this goal, several machine learning algorithms as Long Short – Term Memory and Gaussian process regression are used. Comparing these algorithms allows us to find the best price prediction model for the selected cryptocurrencies. In order to assess the accuracy of the model, the evaluation is based on the root mean square error, the mean percentage error and the R2 criterion. This study presents the methodology, data preparation and analysis, model training and results