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Title	Prediction of Cryptocurrency Price using Machine Learning Techniques and Public Sentiment Analysis		
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Abstract

Bitcoin and other cryptocurrencies are emerging markets that are growing more and more important in the financial world. Since the definition of money has changed and its price has fluctuated, cryptocurrencies like Bitcoin and others have grown in popularity. In this study, we suggest the use of machine





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learning technologies and readily accessible social media data for forecasting the price movement of the Bitcoin market. We used sentiment analysis and machine learning techniques to extract tweets from Twitter postings to examine the relationship between bitcoin price changes and tweet sentiment. We used a variety of machine learning methods to create a prediction model and insightful analysis of future market values. We use five distinct machine learning models, including Support Vector Regression (SVR), Prophet, An Autoregressive Integrated Moving Average (ARIMA), Long Short-Term Memory (LSTM), and XGBoost. Every model was tested on the last 30% of the data after training on the first 70%. The models' Root Mean Square Errors (RMSE) are compared. The expansion of the collection of significant characteristics retrieved from textual data using sentiment analysis employing long short-term memory is another way that this work adds to the body of knowledge on directed bitcoin price returns forecast (LSTM). The findings demonstrate that cryptocurrency markets may be predicted using machine learning and sentiment analysis, however other coins may be predicted using only Twitter data. The most impressive outcome from the LSTM model.

