عنوان مقاله:

Machine learning algorithms for time series in financial markets

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خلاصه مقاله:

This research is related to the usefulness of different machine learning methods in forecasting time series on financial markets. The main issue in this field is that economic managers and scientific society are still longing for more accurate forecasting algorithms. Fulfilling this request leads to an increase in forecasting quality and, therefore, more profitability and efficiency. In this paper, while we introduce the most efficient features, we will show how valuable results could be achieved by the use of a financial time series technical variables that exist on the Tehran stock market. The suggested method benefits from regression-based machine learning algorithms with a focus on selecting the leading features to find the best technical variables of the inputs. The mentioned procedures were implemented using machine learning tools using the Python language. The dataset used in this paper was the stock information of two companies from the Tehran Stock Exchange, regarding ۲۰۰۸ to ۲۰۱۸ financial activities. Experimental results show that the selected technical features by the leading methods could find the best and most efficient values for the parameters of the algorithms. The use of those values results in forecasting with a minimum error rate for stock data.

کلمات کلیدی:

Financial Markets, Stock market, Machine Learning, forecasting, Time series

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