

Stock Candle

ABSTRACT

In the era of big data, deep learning for predicting stock market prices and trends has become even more popular than before. We will be collecting past 7 years of data from API and will propose a comprehensive customization of feature engineering and deep learning-based model for predicting price trend of stock markets. The proposed solution will include pre-processing of the stock market dataset, utilization of multiple feature engineering techniques, combined with a customized deep learning based system for stock market price trend prediction.

Finance is highly nonlinear and sometimes stock price data can even seem completely random. Traditional time series methods such as ARIMA, SARIMA and GARCH models are effective only when the series is stationary. This is combated by using **Neural Networks** (FBProphet), which do not require any stationarity to be used.

We are using FBProphet for predicting the identified stock future prices. This model is trained by giving data from year 2015 of a particular company stock, then it is possible to do prediction of stock prices of next 4 years, upto 2026. To enhance performance of model, different optimization techniques can be used.

The proposed solution includes pre-processing of the stock market dataset, utilization of multiple feature engineering techniques, combined with a customized deep learning based system for stock market price trend prediction.

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