## عنوان مقاله:

Improving demand forecasting with LSTM by taking into account the seasonality of data

## نویسندگان:

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## خلاصه مقاله:

Demand forecasting is a vital task for firms to manage the optimum quantity of raw material and products. The demand forecasting task can be formulated as a time series forecasting problem by measuring historical demand data at equal intervals. Demand time series usually exhibit a seasonal pattern. The principle idea of this study is to propose a method that predicts the demand for every different season using a specialized forecaster. In this study, we test our proposal using the Long Short-Term Memory (LSTM) which is a deep learning technique for time series forecasting. Specifically, the proposed method instead of learning an LSTM model using the whole demand data builds a specialized LSTM model corresponding to each season. The proposed method is evaluated using different topologies of the LSTM model. The results of experiments indicated that the proposed method outperforms the regular method considering the performance measures. The proposed method can be used in other domains for demand forecasting.

## کلمات کلیدی:

LSTM, Time series forecasting, Demand prediction

## لینک ثابت مقاله در پایگاه سیویلیکا:

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