

Enhancing E-Commerce Sales Prediction: Overcoming Data and Complexity Challenges with LSTM Models

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Description Accurate sales forecasting is critical for optimizing inventory management, marketing strategies, and overall operational efficiency in e-commerce. This research focuses on predicting purchase trends for the most popular products on an e-commerce platform using Long Short-Term Memory (LSTM) networks – a powerful deep learning technique designed to capture temporal dependencies in time-series data. Using the given dataset of the products and the orders over time, the data is analyzed to find the most in-demand item over a period of time. It does this by multiple different processing techniques that include data cleaning and placing the data based on the time it was purchased on and smoothing the data to make it more applicable to be form-fitted in the LSTM model. The LSTM model predicts the demand over time for the sales of multiple different products, which is then compared to the actual data and made ...

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