Retails Sales Prediction using Deep learning

This Projects aims to predict future sales using historical time series data with deep learning

Requirement:

1.TensorFlow

2.Pandas

3.Numpy

4.Scikit-learn

5.matplotlib

Title: Retail Sales Prediction Using Deep learning

Name : Thanikai Chandran CJ

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Description:

The code for this project is implemented using TensorFlow, Pandas, NumPy, Scikit-learn, and Matplotlib libraries. It consists of data preprocessing, model building, training, evaluation, and prediction.

The dataset consists of monthly sales data from 2015 to 2020. Initial exploration revealed seasonal patterns and missing values, which were addressed through forward filling and normalization.

The results indicate that the LSTM model effectively captures sales trends and seasonal patterns. Challenges such as data sparsity and anomalies were successfully managed. Further improvements could involve experimenting with different model architectures and additional features.

Dataset

The dataset used for this project consists of monthly sales data from 2015 to 2020. It includes information about sales volume, time-related features, and potentially other relevant variables. Initial exploration revealed seasonal patterns and missing values, which were addressed through forward filling and normalization.

Conclusion:

This project successfully demonstrated the application of deep learning for retail sales prediction. The LSTM model provided accurate forecasts, aiding in better decision-making for inventory and sales strategies. Future work could explore the inclusion of external factors to enhance model performance.

Acknowledgment:

Thank you for giving me this opportunity.