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Credit Card Fraud Detection Using Deep Learning

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Abstract: Credit cards offer an effective and convenient method for doing online transactions. Credit card abuse is becoming more likely as a result of increased credit card use. Both the owners of credit cards and financial institutions suffer large financial losses as a result of credit card theft. The major goal of this study is to identify such frauds, which may be done by looking at factors including the availability of public data, data with severe class imbalances, changes in the form of fraud, and high rates of false alarm. Applying the LSTM and RNN model's Deep Learning algorithm and adding extra layers for feature extraction and the categorization of credit card transactions as fraudulent or not is the major goal.The primary objective is to identify fraudulent credit card transactions with the use of deep learning algorithms. The most important elements from the CCF transaction dataset are ranked using feature selection techniques to aid with class label predictions. The credit card farad detection dataset is utilised to extract the features and classification for the deep learning model by adding a number of additional layers. Apply alternative layer architectures to analyse the performance of both models. Text processing and the baseline model are linked to DL approaches. These techniques outperform the conventional algorithm for the identification of credit cards.

Keywords: DL:-Deep Learning, RNN:-*Recurrent Neural Network*, SMOTE:-Synthetic Minority Oversampling, IP:- Internet Protocol.

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