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Credit Card Fraud Detection Using ML Algorithms

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Abstract: *Bank credit card default rates are (as predicted by S&P dow Jones index) at all time high for the past few months. This possess a real challenge for banks and other lending financial institutions, as they are now more than ever are in need of a robust risk prediction model to generalize the economic behavior of their current and potential future clients. In real world massive stream of payment requests are coming in every second which is huge challenge to monitor. Machine Learning algorithms help in solving these huge challenges to an extent. These predictive models would not only benefit the lending institutions but also the customer as it would make them more aware of their potential defaulting rate. The goal of this project is to resolve this problem by building and comparing predictive risk models using supervised learning algorithms. We use python libraries to perform various Machine learning algorithms on the credit card dataset and data diagrams to have better visualization of data. Here the credit card fraud detection is done on the basis of some attributes in the dataset like the time factor and the amount factor. The accuracy of the algorithms is also being determined and the most efficient one is said with the highest accuracy obtained..*

Keywords: Numpy, pandas, sklearn, logistic regression, knn, decision trees, random forest, XG boost, data visualization, pyplot

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