**CREDIT CARD FRAUD ANALYSIS**

**Team members:**

Devi Sumanth Pasunoori

Tinku Naga Sai Pavan Adapa

**Github link:**<https://github.com/sumanth1904/sdai_project>

**Goals and Objectives:**

* **Motivation:**

Financial fraud cases, like credit card fraud, have increased because of recent increase e-commerce and e-payment systems. As a result, it is critical to put in place mechanisms that can detect credit card fraud. Due to the increase in fraud rates, researchers started exploring different techniques to identify and analyse online fraudulent transactions. One such technique which seems promising is using machine learning models. When using machine learning for credit card fraud detection, features of credit card frauds play an important role, and they must be chosen carefully.

* **Significance:**

As there is lot of fraud occurring on the internet with e-payment systems. There is scope for systems which can detect such activities. In order to detect them, one must learn which transaction is fraudulent based on previous data. Only machine learning can be useful when there is a chance to learn from data. By using machine learning, we can train the system to identify which transaction is most probably fraudulent and isolate them without leading anyone to be a cyber-crime victim. Our aim is to identify the best machine learning model which can classify a credit card transaction as valid or fraudulent.

* **Objectives:**

1. To implement machine learning techniques for fraudulent credit card analysis.
2. To test various algorithms against the same dataset
3. To find out the best model among them based on testing accuracy
4. To tune the model so that it is neither overfitted nor underfitted.

* **Features:**

Features of given project are:

1. It is supervised learning model.
2. Dataset type is .csv
3. It is a classification model
4. This project uses numpy, pandas, scikit learn modules.

**References:**

1. <https://www.kaggle.com/mlg-ulb/creditcardfraud>