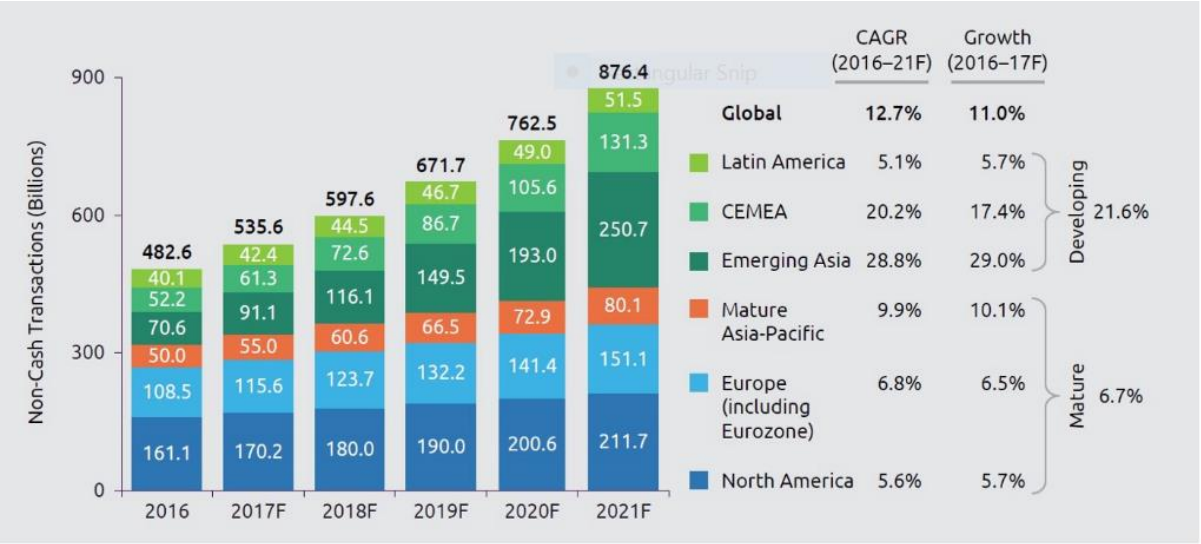
Payment Fraud Detection

Introduction:

In today's world, we are on the express train to a cashless society. According to the World Payments Report, in 2016 total non-cash transactions increased by 10.1% from 2015 for a total of 482.6 billion transactions! That's huge! Also, it's expected that in future years there will be a steady growth of non-cash transactions as shown below:



World Payments Report Forecast

Now, while this might be exciting news, on the flip-side fraudulent transactions are on the rise as well.

The fraud prevention systems are actually saving consumers millions of dollars per year.

Problem at hand:

Fraudulent transactions are increasing day by day. By improving the count of fraud prevention systems, we would be able to easily minimize the Fraudulent transactions.

Objective:

1. To improve the count of fraud prevention systems and also improving the Customer experience.
2. To improve the efficacy of fraudulent transaction alerts for millions of people around the world, helping hundreds of thousands of businesses reduce their fraud loss and increase their revenue.

Dataset to be used:

https://www.kaggle.com/c/ieee-fraud-detection/data

Dataset has been provided by the Vesta Corporation.

Methodology:

- Data Wrangling and cleaning of the dataset
- Exploratory Data Analysis to determine the essential features
- Feature Engineering

● Creating a baseline Model

● Fine Tuning the Hyperparameters

● Calculating Probability and showing Model performance with relevant Evaluation Metric

Deliverables:

- Jupyter notebook that contains:
  EDA
  Data Preparation
  Model Building
  Validation and Evaluation

- Proper visualization at every step so that client can easily understand the model.