Abstract: This is the first project provided By Upskill in their ISA IM program to the participants. The project is a Kaggle competition which closed 2 years ago.

In this competition, IEEE Computational Intelligence Society (IEEE-CIS) partnered with the world's leading payment service company, Vesta Corporation, seeking the best solutions for fraud prevention industry. We had to benchmark machine learning models on a challenging large-scale dataset containing data from Vesta's real-world e-commerce transactions. The objective of the competition was 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.

Methodology: I have used different algorithms to create the model. The prominent ones are:

1) sklearn.preprocessing.LabelEncoder
2) sklearn.decomposition.PCA
3) imblearn.over_sampling.SMOTE
4) LightGBM

Result Analysis: The model gives an accuracy of .

Conclusion: The accuracy can be increased by tuning the hyperparameters better.