

# **Ethereum Fraud Detection**

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Ethereum is a software platform that uses the concept of blockchain and decentralizes data by distributing copies of smart contracts to thousands of individuals worldwide. Ethereum, as a currency, is utilized to exchange value worldwide in the absence of a third party to monitor or intervene

## **Aim**

Prediction of Fraud/Valid Transaction

## **Abstract**

as online commerce grows, a slew of fraudulent activities, such as money laundering, bribery, and phishing, emerge as the primary threat to trade security.

In this project we we perform EDA, Data reprocessing, and Correlation Matrix & using Supervised ML models like Logistic Regression, Random Forest Classifier, Decision Tree Classifier, Gradient Boosting Classifier, XGB Classifier, and Hyper Parameter Tuning.

## **Types of question we have to answer**

- Which approaches for accurately detecting fraudulent transactions
- In this project our ML model is used to determine whether project fraud or not
- In work, we using various features for training and testing and fit the various model to check which model gives us best accuracy by evolution of metrics.
- Awareness for fraud detection

## **Analysis On Datasets**

In this analysis performed EDA, pre-processing, build different models, visualized feature importance, hyper parameter tuning and did prediction.

We also perform necessary operations to handle imbalanced and skewed nature of data.

The code is implemented in Python and ML supervised Models are applied and identified the best mode using the confusion matrix and ROC AUC score best on conclusion draw.

## **Reference**

<https://link.springer.com/article/10.1007/s41870-022-00864-6>

<https://www.sciencedirect.com/science/article/pii/S0957417420301433?via%3Dihub>

<https://www.kaggle.com/code/bartoszpieniak/ethereum-fraud-detection-eda-model-selection>

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