# Technical Design

Hunter

## Proposal

- Problem Statement
- Technical Solution
- Architecture Design
- Tasks
- Road Map
- Definition of Done
- Future Work: use BigQuery as database

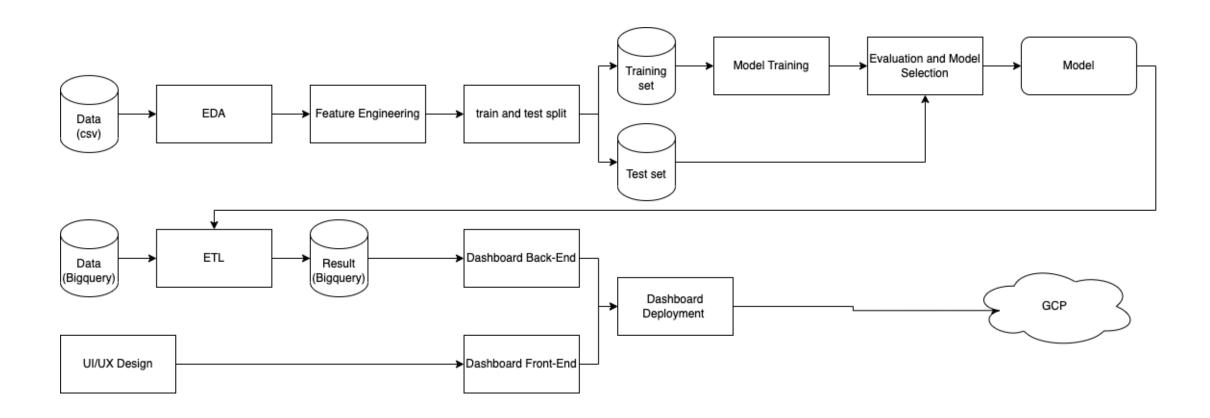
#### Problem Statement

- Describe the stakeholder, i.e. Definer
- Describe the problem: Definer has anomalies in their data, which can cause financial fraud.
- The porpuse: Design a Dashboard to detect and visualize anomalies, to help stakeholder to make decisions

#### **Technical Solution**

- Collect data: Definer provide two csv files by 09/17/2023.
- Build anomaly detection model: EDA, feature engineering, build model:
  - random forest with upsampling/downsampling
  - one class SVM
  - Deliver isolation forest model by 10/10
- Build dashboard using Plotly
  - Send email when detecting an anomaly
  - Show threshold in the plot
- Deploy dashboard in GCP

# Architecture Design



#### Tasks

- EDA
- Feature engineering
- Model Training
- Model Evaluation and Selection
- Data Extraction
- Data Transformation
- Data Loading
- UI/UX Design
- Back-End Development
- Front-End Development
- Dashboard Deployment

## Road Map

