

User Manual (manual.pdf)

Overview

This tool performs machine learning experiments on performance datasets, comparing a baseline Linear Regression model with an improved XGBoost model. It processes multiple datasets, evaluates model performance, and saves results in a CSV file.

Usage Instructions

1. Prepare the Dataset

- **Ensure that your datasets are structured as CSV files with numerical and categorical features.**
- **Store datasets in the appropriate directory:
C:\Users\chiam\OneDrive\Desktop\ISE\lab2\datasets.**

2. Run the Script

- **Execute the Python script:**

3. python Configuration_Performance_Learning.py

- **The script will automatically iterate through datasets, train models, evaluate performance, and save results to model_performance_results.csv.**

4. Output

- **The output file model_performance_results1.csv contains performance metrics for each dataset and model iteration.**
- **Metrics included:**
 - **MAE (Mean Absolute Error)**
 - **MAPE (Mean Absolute Percentage Error)**
 - **RMSE (Root Mean Squared Error)**