Project Title: Gender Pay Gap and Socioeconomic Factors Analysis

Course: IST-692 – Responsible AI

Files in this Folder:

- **Project 3.ipynb**
  Jupyter Notebook containing all code for data cleaning, exploratory analysis, model training, and fairness evaluation. The analysis includes:

  - Handling missing data and outliers

  - Feature selection and correlation heatmaps

  - Predictive modeling with decision trees and logistic regression

  - Fairness auditing using SHAP and LIME

- **Gender Pay Gap and Socioeconomic Factors Analysis.pdf**
  A formal written report summarizing insights, methodology, results, and ethical implications of the analysis.

🔧 **Software/Tools Required to View:**

- Python 3.x environment (if running locally)

- Required libraries:
  `pip install pandas matplotlib seaborn scikit-learn shap lime`