

Bias Detection Report

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Dataset Analyzed

- **Path**: source_files/Statlog.csv

Features Examined

- **Installment rate in percentage of disposable income** (Numerical)
- **Personal status and sex** (Categorical)

Types of Bias Detected

- Correlation Bias

Tools and Methods Used

- **Hilbert-Schmidt Independence Criterion (HSIC)**
- **Standardized Difference**

Results

1. **Hilbert-Schmidt Independence Criterion (HSIC)**:

- **HSIC Value**: 6.89e-9
- **Interpretation**: Indicates a very weak correlation bias.

2. **Standardized Difference**:

- **Value**: -0.144
- **Interpretation**: Indicates minimal bias.

Bias Assessment

- The overall analysis indicates a minimal level of correlation bias between the examined features.
- The features do not show significant influence on each other, suggesting fairness in the loan structuring regarding installment rates related to personal status and sex.

Recommendations

- Based on the detected minimal bias, this dataset can be utilized with confidence for further analysis or decision-making in related contexts.