

Bias Detection Report

Bias Detection Report for COMPAS Dataset

1. Bias Type: Distribution and Correlation

2. Relevant Feature(s): 'Sex_Code_Text' (Gender)

3. Bias Level:

- Distribution Analysis:

- Shannon Balance: Level 3 (Moderate imbalance)

- Max-Min Ratio: Level 4 (Substantial imbalance)

- Gini Index: Level 3 (Moderate imbalance)

- Correlation Analysis:

- Cramér's V: Level 1 (No significant correlation)

- Statistical Parity: Level 1 (No significant disparity)

4. Overall Bias Level: Level 3 (Moderate level of gender bias)

5. Additional Explanation:

- The distribution analysis reveals a moderate to substantial imbalance in the representation of gender, with a higher representation of one gender over the other. This is evident from the Shannon Balance, Max-Min Ratio, and Gini Index results.

- The correlation analysis, however, shows no significant correlation or disparity between gender and the 'ScoreText' feature, suggesting that gender does not significantly influence the 'ScoreText'

outcomes in this dataset.