

Bias Detection Report

Marital Status Distribution Bias Report

This report analyzes the distribution bias in the 'MaritalStatus' feature of the COMPAS dataset.

1. Shannon Entropy and Balance Metric:

- Shannon Entropy: 1.3035
- Balance Metric: 0.4643
- Bias Level: Level 4 (Significant Bias)

2. Entropy Analysis:

- Normalized Entropy: 0.4643
- Bias Level: Level 4 (Significant Bias)

3. Gini Index:

- Adjusted Gini Index: 0.4976
- Bias Level: Level 4 (Significant Bias)

4. Max/Min Ratio:

- Max/Min Ratio: 211.86
- Bias Level: Level 5 (Extreme Bias)

5. Relative Risk:

- Normalized Bias Score: 211.86

- Bias Level: Level 5 (Extreme Bias)

6. Jensen-Shannon Divergence:

- JSD: 0.0678

- Indicates a less pronounced bias in terms of divergence from a uniform distribution.

