

Bias Detection Report

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Dataset Analyzed:

- Source: MIMIC-IV.csv
- Feature: patient_insurance

Bias Type: Distribution

Relevant Feature(s): patient_insurance

Analysis Methods and Results:

1. **Shannon Entropy and Balance Metric**:

- Balance: 0.7968
- Shannon Entropy: 1.2629

2. **Max/Min Ratio**:

- Max/Min Ratio: 8.0921

3. **Gini Index**:

- Corrected Gini Index: 0.5414

- Adjusted Gini Index: 0.8121

4. **Jensen-Shannon Divergence**:

- JSD: 0.3000

Visualization:

- A bar chart representing the distribution of patient insurance types is included.

Conclusion:

The distribution of patient insurance types exhibits some bias. The analysis indicates a moderate level of bias. While the dataset remains usable, care should be taken in interpreting results that depend on insurance type.

Recommendations:

Consider potential biases in insurance types when making decisions based on this data. Consider adjustments or awareness of these biases for fair and accurate analyses.

