

# Bias Detection Report

Bias Detection Report for MIMIC-IV Dataset

Dataset Analyzed: MIMIC-IV

Features Examined: patient\_race, admission\_type, discharge\_location

Bias Types Detected: Distribution and Correlation

Distribution Analysis Results:

- Shannon Balance Metric: 0.4826 (Level 4)
- Gini Index: 0.6480 (Level 3)

Correlation Analysis Results:

- patient\_race and admission\_type:
  - Cramér's V: 0.1642 (Level 2)
  - Statistical Parity Z-value: 5.3877 (Level 5)
- patient\_race and discharge\_location:
  - Cramér's V: 0.1847 (Level 2)
  - Statistical Parity Z-value: 7.8647 (Level 5)

Conclusion:

- Significant distribution bias in patient\_race.
- Severe correlation biases with admission\_type and discharge\_location.

## Recommendations:

- Investigate disparities and consider corrective actions to ensure fairness in patient care.