

Bias Detection Report

Bias Detection Report

This report analyzes the correlation between age and supervision level recommendations in the COMPAS dataset.

Dataset Summary

The dataset contains records with features such as DateOfBirth and RecSupervisionLevelText. Age was calculated from DateOfBirth.

Analysis Methods

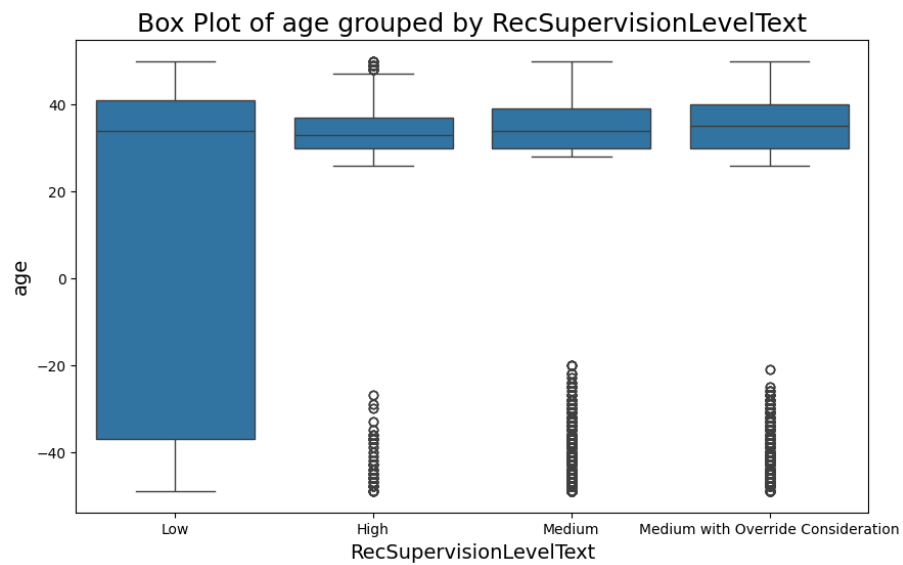
- **Hilbert-Schmidt Independence Criterion (HSIC):** Used to measure correlation bias between the numerical feature 'age' and the categorical feature 'RecSupervisionLevelText'.
- **Max Absolute Mean Correlation:** Used for further validation.

Results

- **HSIC Value:** 5.23e-09 (No significant correlation bias detected)
- **Max Absolute N Value:** 0.448 (Indicates significant bias)

Visualization

The box plot below shows the distribution of ages across different supervision level recommendations.



Conclusion

The analysis shows conflicting results:

- The HSIC method suggests no significant bias between age and supervision level recommendations.
- The Max Absolute Mean Correlation indicates a significant bias.

This discrepancy suggests that further investigation might be necessary, considering different methodological approaches.

The dataset may have significant bias, particularly in specific contexts or subsets.