

Bias Detection Report

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Bias Type: Correlation and Distribution

Relevant Features: romantic, G1, G2, G3, goout, freetime, Dalc, Walc

Bias Levels:

Correlation between romantic and G1: Level 1 (No significant bias)

Correlation between romantic and G2: Level 1 (No significant bias)

Correlation between romantic and G3: Level 2 (Small bias)

Distribution of goout: Level 1 (No significant skewness)

Distribution of freetime: Level 1 (No significant skewness)

Distribution of Dalc: Level 5 (Highly skewed)

Distribution of Walc: Level 2 (Moderately skewed)

Additional Explanation: The analysis indicates that being in a romantic relationship does not significantly impact academic performance ('G1', 'G2', 'G3'), as the bias levels are low (Level 1 and Level 2). The distribution of social activities such as 'goout' and 'freetime' is fairly symmetrical, indicating no significant bias. However, the 'Dalc' feature shows a high level of skewness, indicating a significant bias in weekday alcohol consumption. The 'Walc' feature shows moderate skewness, indicating a small bias in weekend alcohol consumption.

Overall Bias Level: Level 2