

Bias Detection Report

The overall bias level is: Level 3.

The relevant feature is: studytime.

The bias type is: Distribution.

The findings are:

- The skewness of the "studytime" feature is 0.6321422002561792, which indicates a moderate level of bias.
- The box plot shows that there are some outliers in the data, which may indicate a moderate level of bias.

The recommendations are:

- The user should be cautious when using the "studytime" feature in their analysis, as it may contain some bias.
- The user may want to consider using techniques such as data transformation or outlier removal to reduce the bias in the "studytime" feature.

The additional explanations are:

- The moderate level of bias in the "studytime" feature may be due to various factors such as differences in student demographics or learning styles.
- The user should consider using multiple tools and methods to analyze the bias in the dataset, as different tools may detect different types and levels of bias.

The visualizations are:

- The box plot generated by the `plot_box_plot` tool provides a visual representation of the distribution of "studytime" for different schools.

The values obtained are:

- The skewness of the "studytime" feature is 0.6321422002561792.

The extent of the bias is:

- The moderate level of bias in the "studytime" feature may have a significant impact on the accuracy of the analysis, especially if the feature is used as a predictor or outcome variable.

The natural language interpretation of the bias severity is:

- The bias in the "studytime" feature is moderate, which means that it may have a noticeable impact on the analysis, but it is not extreme.

The tools used are:

- `numerical_distribution_skewness`
- `plot_box_plot`
- `get_reference_method_by_id`
- `execute_python_code`

