

Fairfluence Report

Dataset Summary

Metric	Value
Number of Columns	15
Number of Records	1000
Total Cells	15000
Missing Cells	0
Missing Percentage	0.00%
Duplicate Records	0
Duplicate Percentage	0.00%
Memory Usage	484.79 KB
Average Record Size	496.42 Bytes

Column Type Summary

Column Type	Count
Categorical Columns	7
Numeric Columns	6
Text Columns	2

Alerts

Level	Message
Info	Column "student_id" has no missing values
Info	Column "student_id" has all unique values
Info	Column "name" has no missing values
Info	Column "name" has all unique values
Info	Column "gender" has no missing values
Info	Column "age" has no missing values
Info	Column "grade_level" has no missing values
Info	Column "math_score" has no missing values
Info	Column "reading_score" has no missing values
Info	Column "writing_score" has no missing values
Info	Column "attendance_rate" has no missing values
Info	Column "attendance_rate" has all unique values
Info	Column "parent_education" has no missing values
Info	Column "study_hours" has no missing values
Info	Column "study_hours" has all unique values
Info	Column "internet_access" has no missing values
Info	Column "lunch_type" has no missing values

Info	Column "extra_activities" has no missing values
Info	Column "final_result" has no missing values

Quality Results

F1 Score Report

F1 Score (Original)	F1 Score (Statistic)	F1 Score (Influence)
0.5537	0.5537	0.5537

Outlier Summary

Influence Outliers (Count)	Influence Outliers (%)	Mahalanobis Outliers (Count)	Mahalanobis Outliers (%)	Overlap (Count)
0	0.0	0	0.0	0

Fairness Results

Top Patterns

Pattern Column 1	Pattern Value 1	Support	Responsibility	Interestingness
reading_score	(49.999, 66.0]	0.3125	9.1389	29.2445
parent_education	Master's	0.2388	4.5379	19.0068
grade_level	(10.0, 11.0]	0.255	4.6208	18.1207
lunch_type	Standard	0.5062	8.6276	17.0422
age	(14.999, 16.0]	0.3388	5.5111	16.2688

Fairness (No Influence)

Sensitive Feature	DPD	DPD Fair	EOD	EOD Fair	PPV Diff	PPV Fair
gender	0.4412	No	0.5036	No	0.1222	No
age	0.0861	Yes	0.1399	No	0.1333	No

Fairness (With Influence)

Influence Group	Positive Group	Mean (Positive)	Mean (Other)	Mean Difference	Influence Fair
reading_score	(49.999, 66.0]	nan	2.45e-05	nan	No
parent_education	Master's	0.00015225	-1.557e-05	0.00016783	Yes
grade_level	(10.0, 11.0]	nan	2.45e-05	nan	No
lunch_type	Standard	-6.824e-05	0.00011958	0.00018781	Yes
age	(14.999, 16.0]	nan	2.45e-05	nan	No