

Fairness Report for Titanic-Dataset.csv

Generated on: Aug. 14, 2025, 10:19 a.m.

Metrics

Fairness Metrics Overview

Metric	Value																								
accuracy	0.716																								
precision	0.524																								
recall	0.423																								
f1_score	0.468																								
roc_auc	0.692																								
demographic_parity	<div><div>Sub-metrics for demographic_parity</div><table><tr><th>Sub-metric</th><th>Value</th></tr><tr><td>PassengerId</td><td>1.000</td></tr><tr><td>Pclass</td><td>0.378</td></tr><tr><td>Sex</td><td>0.597</td></tr><tr><td>SibSp</td><td>0.142</td></tr><tr><td>Ticket</td><td>1.000</td></tr><tr><td>Cabin</td><td>1.000</td></tr><tr><td>Embarked</td><td>0.386</td></tr><tr><td>Fare</td><td>1.000</td></tr><tr><td>Parch</td><td></td></tr><tr><td>Age</td><td>1.000</td></tr><tr><td>Name</td><td>1.000</td></tr></table></div>	Sub-metric	Value	PassengerId	1.000	Pclass	0.378	Sex	0.597	SibSp	0.142	Ticket	1.000	Cabin	1.000	Embarked	0.386	Fare	1.000	Parch		Age	1.000	Name	1.000
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Name	1.000																								

equalized_odds

Sub-metrics for equalized_odds

Sub-metric	Value
PassengerId	1.000
Pclass	0.355
Sex	0.564
SibSp	0.091
Ticket	1.000
Cabin	1.000
Embarked	0.607
Fare	1.000
Parch	
Age	1.000
Name	1.000

calibration

individual_fairness

Suggestions

Fairness Improvement Suggestions

Type	Priority	Description	Attribute
feature_engineering	low	Remove or transform features highly correlated with sensitive attributes	Age
data_augmentation	high	Increase representation of underrepresented groups in training data	Embarked
algorithmic_adjustment	medium	Apply post-processing fairness constraints to model predictions	Embarked
feature_engineering	low	Remove or transform features highly correlated with sensitive attributes	Embarked

data_augmentation	high	Increase representation of underrepresented groups in training data	SibSp
feature_engineering	low	Remove or transform features highly correlated with sensitive attributes	SibSp
feature_engineering	low	Remove or transform features highly correlated with sensitive attributes	PassengerId
feature_engineering	low	Remove or transform features highly correlated with sensitive attributes	Fare
feature_engineering	low	Remove or transform features highly correlated with sensitive attributes	Cabin

algorithmic_adjustment	medium	Apply post-processing fairness constraints to model predictions	Sex
feature_engineering	low	Remove or transform features highly correlated with sensitive attributes	Sex
feature_engineering	low	Remove or transform features highly correlated with sensitive attributes	Name
feature_engineering	low	Remove or transform features highly correlated with sensitive attributes	Parch
feature_engineering	low	Remove or transform features highly correlated with sensitive attributes	Ticket

data_augmentation	high	Increase representation of underrepresented groups in training data	Pclass
feature_engineering	low	Remove or transform features highly correlated with sensitive attributes	Pclass

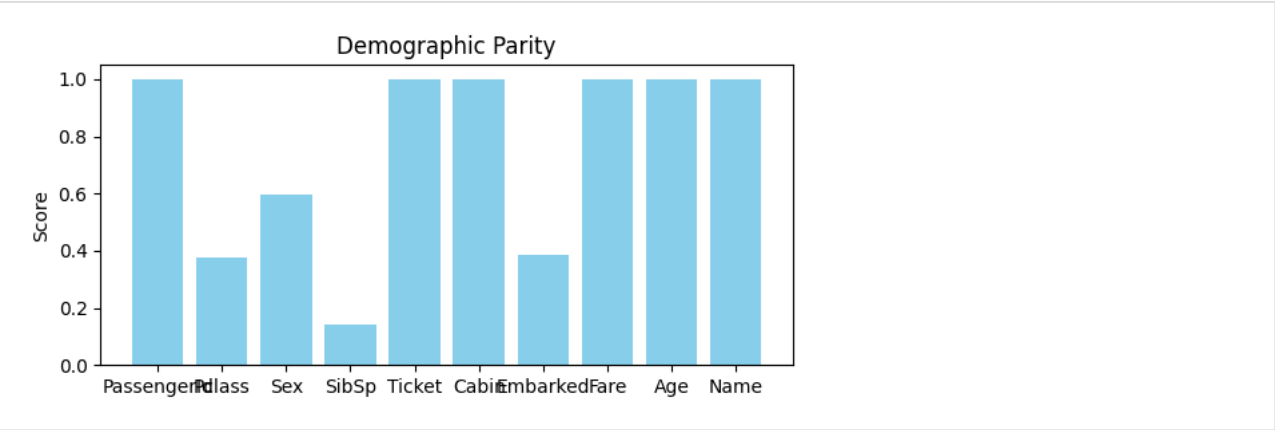
Sensitive Attributes

No sensitive attributes available.

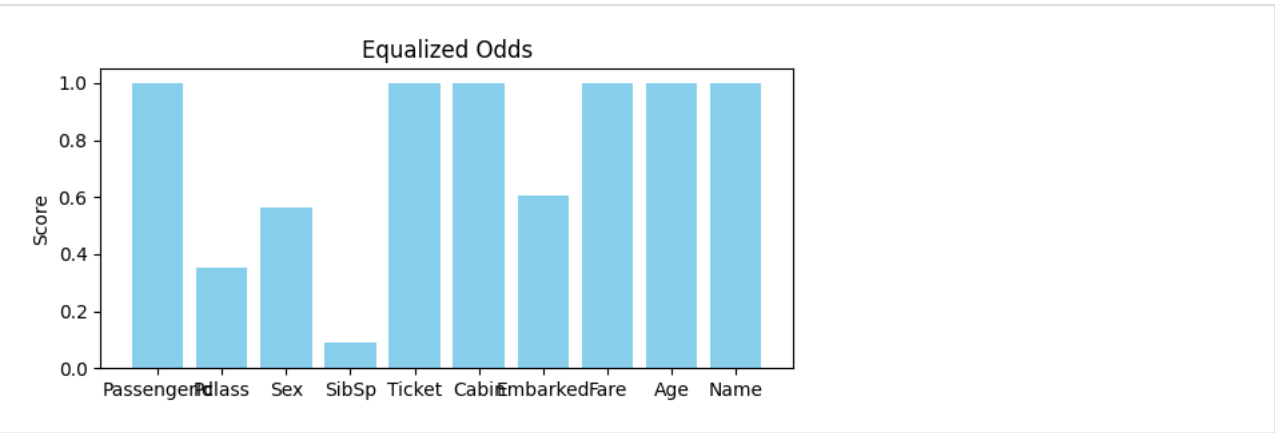
Charts

No charts available.

Demographic_Parity Chart



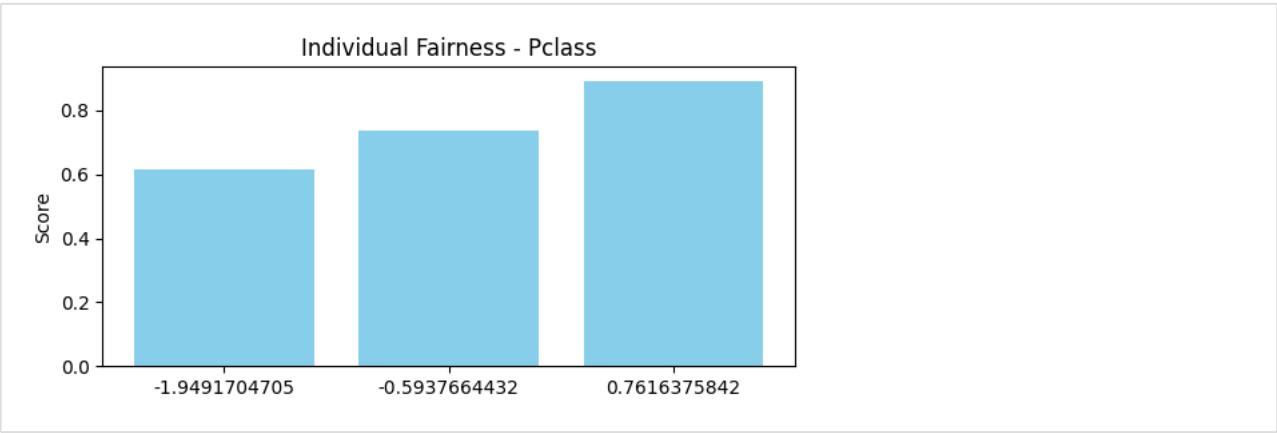
Equalized_Odds Chart



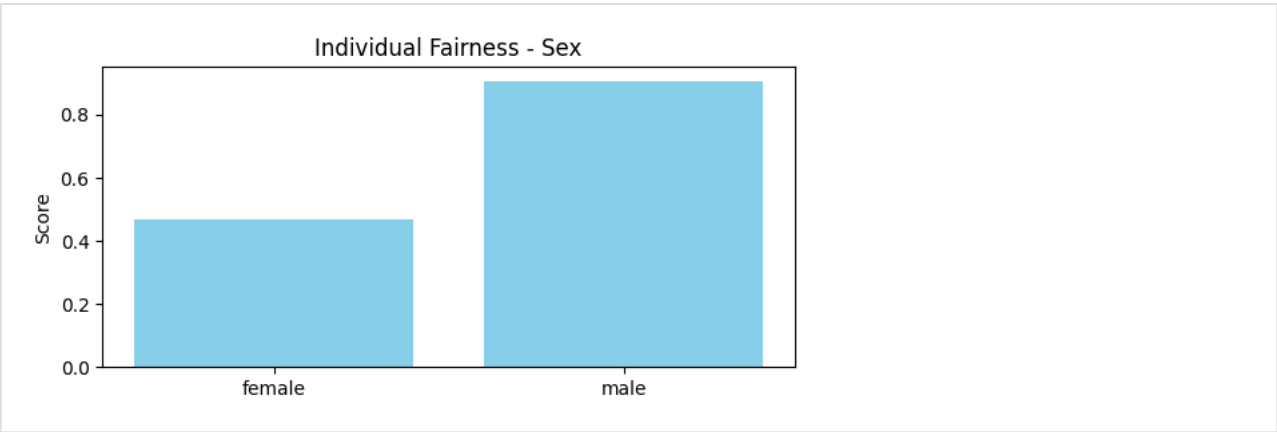
Individual_Fairness_Passengerid Chart



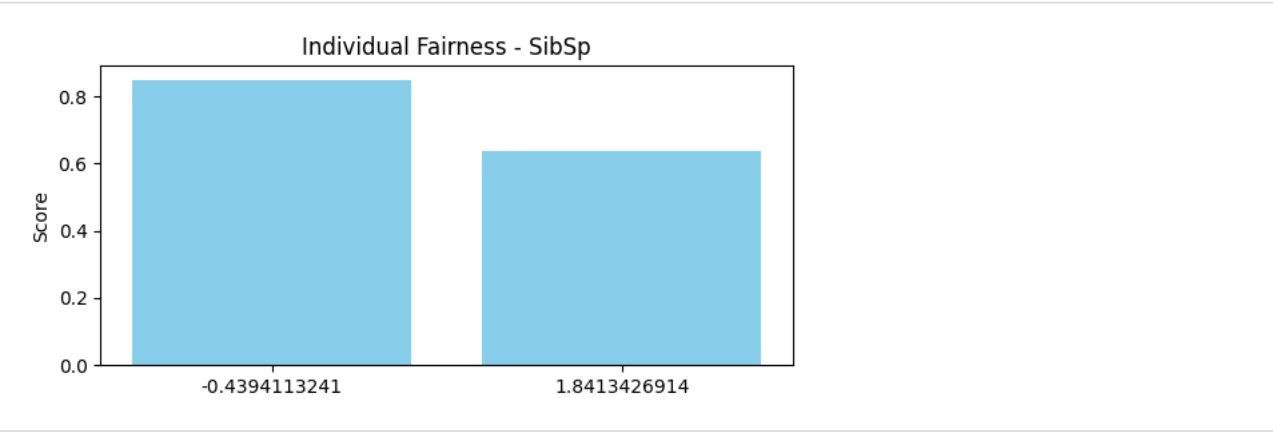
Individual_Fairness_Pclass Chart



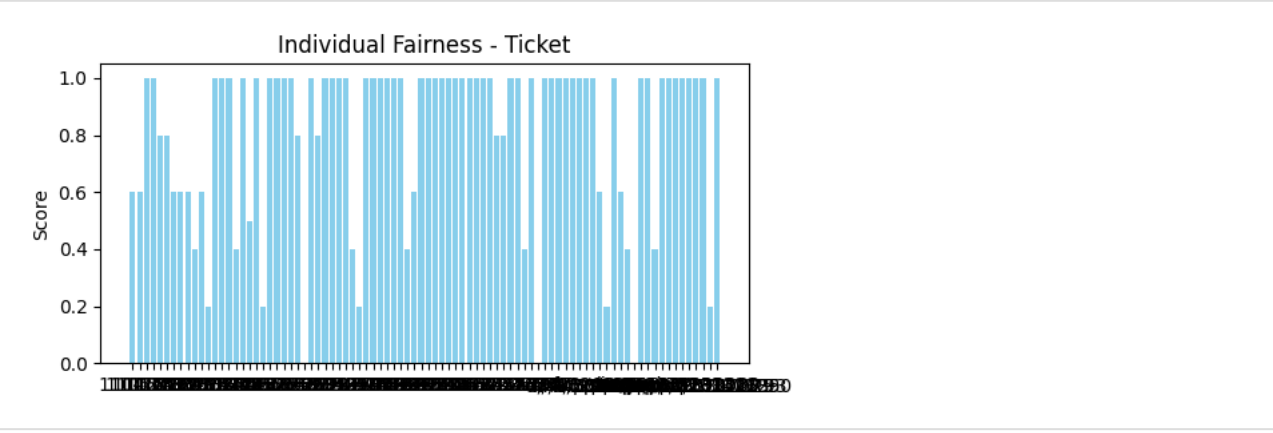
Individual_Fairness_Sex Chart



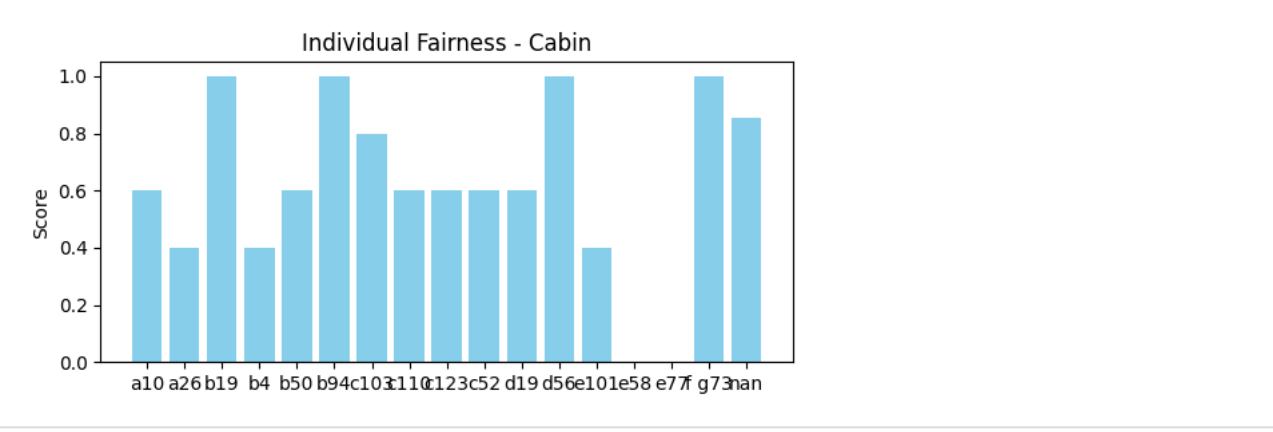
Individual_Fairness_Sibsp Chart



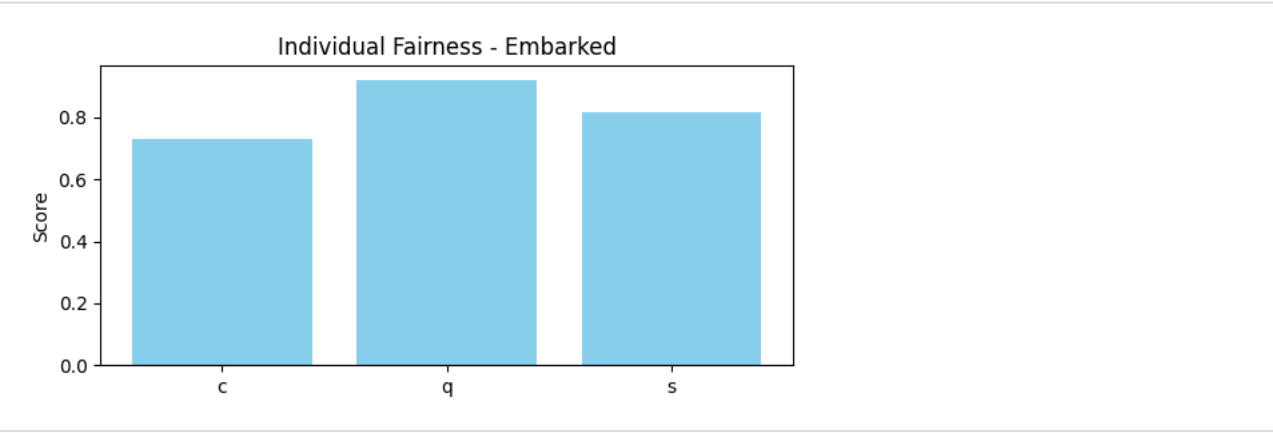
Individual_Fairness_Ticket Chart



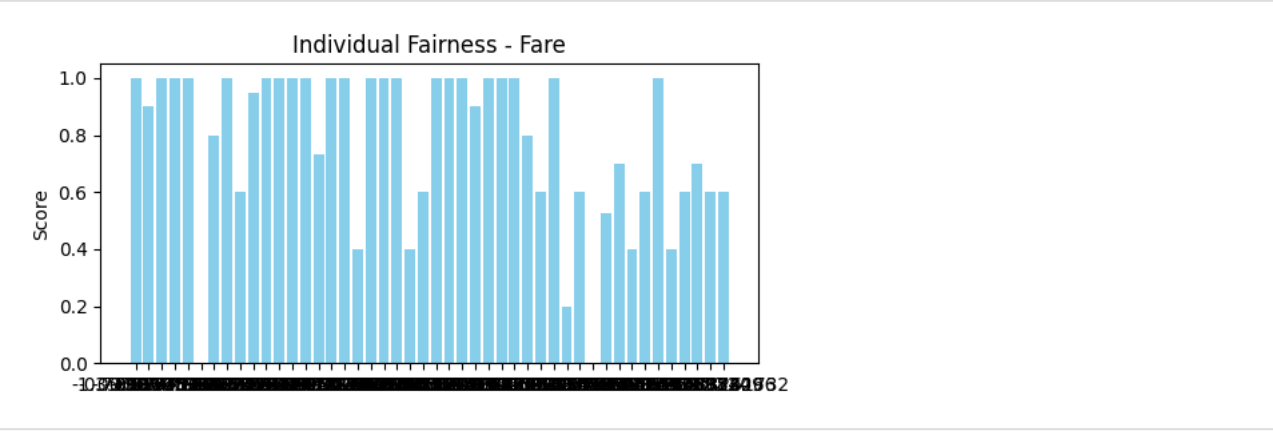
Individual_Fairness_Cabin Chart



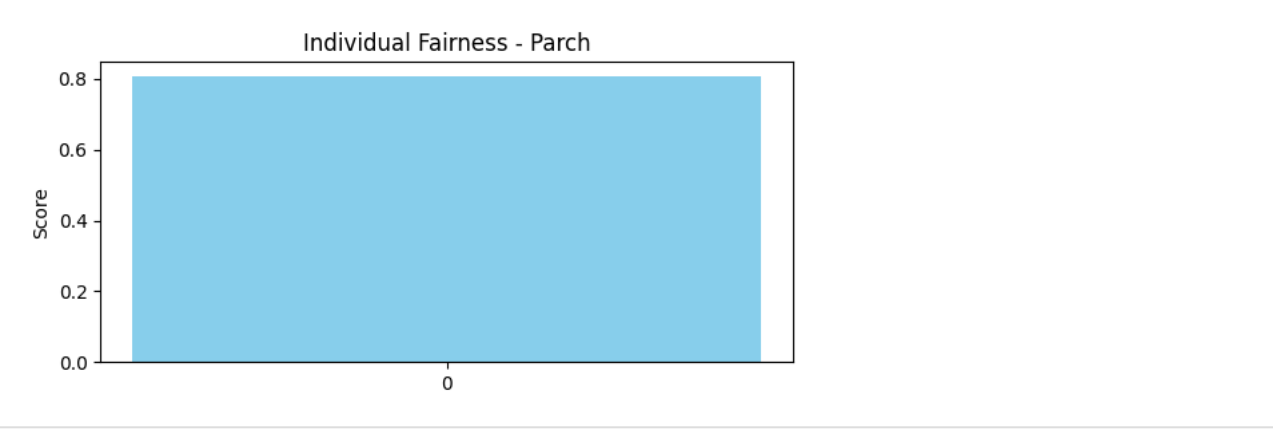
Individual_Fairness_Embarked Chart



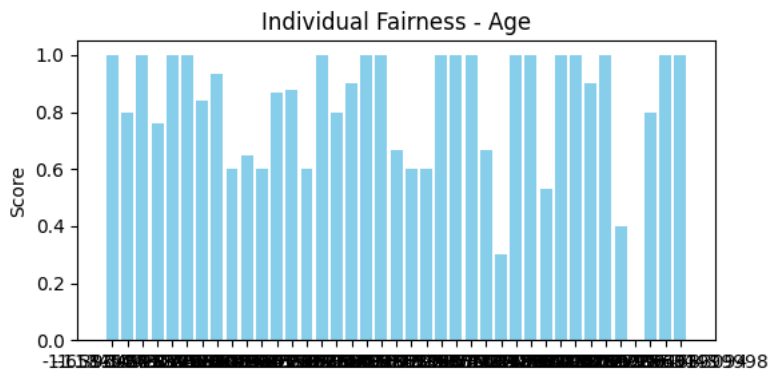
Individual_Fairness_Fare Chart



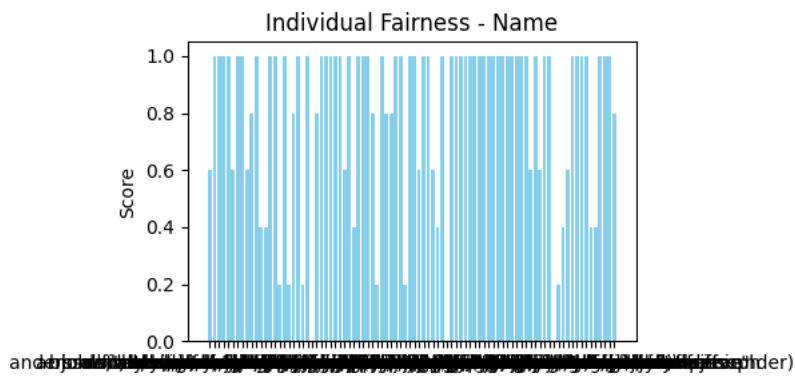
Individual_Fairness_Parch Chart



Individual_Fairness_Age Chart



Individual_Fairness_Name Chart



Bias_Severity Chart

Bias Severity Distribution

