# Analysis Report

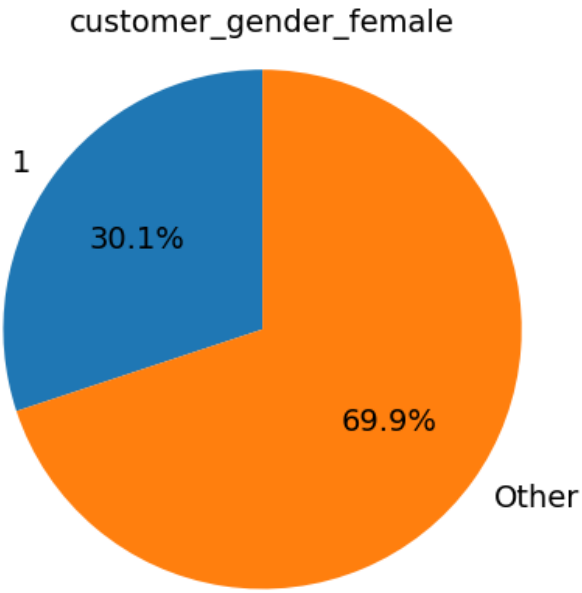
We report the following SageMaker analysis.

## Pre-training Bias Metrics

We computed the bias metrics for the label `fraud` using label value(s)/threshold `0`.

- **customer_gender_female**

The groups are represented in the dataset with the following proportions.




Value(s)/Threshold: 1

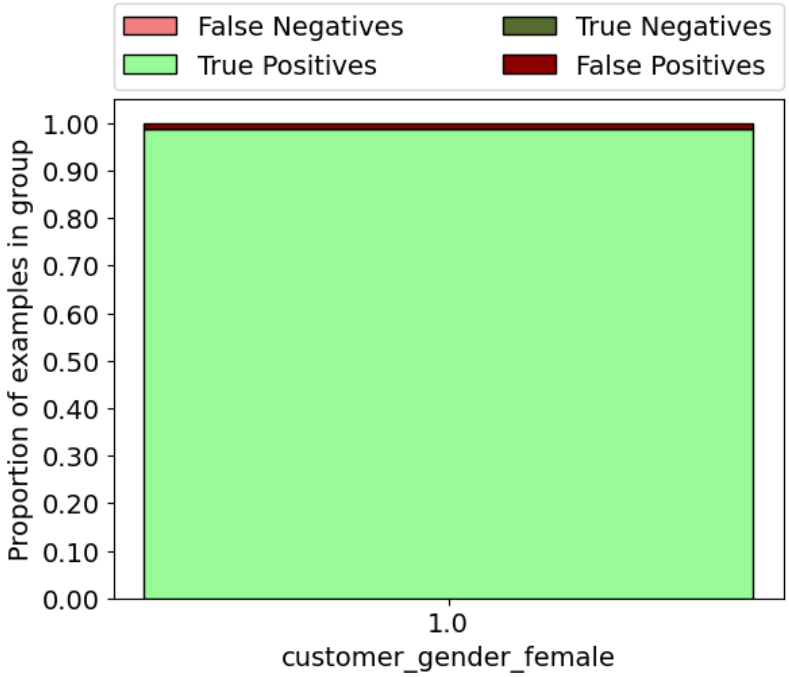
| name | description | value | error |
|---|---|---|---|
| CDDL | Conditional Demographic Disparity in Labels (CDDL) | None | Group variable is empty or not provided |
| CI | Class Imbalance (CI) | 0.398 | NaN |
| DPL | Difference in Positive Proportions in Labels (DPL) | -0.021519 | NaN |
| JS | Jensen-Shannon Divergence (JS) | 0.00265 | NaN |
| KL | Kullback-Liebler Divergence (KL) | 0.012806 | NaN |
| KS | Kolmogorov-Smirnov Distance (KS) | 0.021519 | NaN |
| LP | L-p Norm (LP) | 0.030432 | NaN |
| TVD | Total Variation Distance (TVD) | 0.021519 | NaN |

## Post-training Bias Metrics

We computed the bias metrics for the label `fraud` using label value(s)/threshold `0`.

- **customer_gender_female**

The labels and predictions of the group have the following proportions.




Positive labels = TP + FN --- Used in the following metrics: DPL, JS, KL, KS, LP, TVD
Negative labels = TN + FP
Positive predictions = TP + FP --- Used in the following metrics: DI
Negative predictions = TN + FN
Accuracy = TP + TN --- Used in the following metrics: AD
Recall = TP / (TP + FN) --- Used in the following metrics: RD
Precision = TP / (TP + FP) --- Used in the following metrics: DAR

Value(s)/Threshold: 1

| name | description | value | error |
|---|---|---|---|
| AD | Accuracy Difference (AD) | -0.021519 | NaN |
| CDDPL | Conditional Demographic Disparity in Predicted Labels (CDDPL) | None | Group variable is empty or not provided |
| DAR | Difference in Acceptance Rates (DAR) | -0.021519 | NaN |
| DCA | Difference in Conditional Acceptance (DCA) | -0.021519 | NaN |
| DCR | Difference in Conditional Rejection (DCR) | 0 | NaN |
| DI | Disparate Impact (DI) | 1.0 | NaN |
| DPPL | Difference in Positive Proportions in Predicted Labels (DPPL) | 0.0 | NaN |
| DRR | Difference in Rejection Rates (DRR) | 0.0 | NaN |
| FT | Flip Test (FT) | 0.0 | NaN |
| RD | Recall Difference (RD) | 0.0 | NaN |
| TE | Treatment Equality (TE) | 0.0 | NaN |