Analysis Report

Global dataset report

This report is the output of the Amazon SageMaker Clarify analysis. The report is split into following parts:

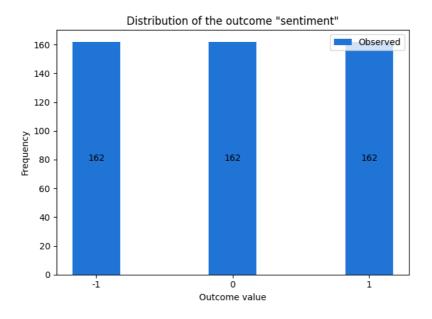
- 1. Analysis configuration
- 2. Pretraining bias metrics

Analysis Configuration

Bias analysis requires you to configure the outcome label column, the facet and optionally a group variable. Generating explanations requires you to configure the outcome label. You configured the analysis with the following variables. The complete analysis configuration is appended at the end.

Outcome label: You chose the column sentiment in the input data as the outcome label. Bias metric computation requires designating the positive outcome. You chose sentiment = 1 as the positive outcome. sentiment consisted of values [-1, 0, 1].

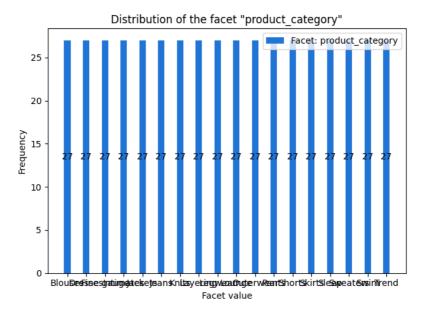
The figure below shows the distribution of values of sentiment .



Facet: You chose the column product_category in the input data as the facet. product_category consisted of values ['Blouses', 'Dresses', 'Fine gauge', 'Intimates', 'Jackets', 'Jeans', 'Knits', 'Layering', 'Legwear', 'Lounge', 'Outerwear', 'Pants', 'Shorts', 'Skirts', 'Sleep', 'Sweaters', 'Swim', 'Trend'] . Bias metrics were computed by comparing the inputs product_category = Blouses with all other inputs, then by comparing inputs product_category = Dresses with all other inputs, then by comparing inputs product_category = Intimates with all other inputs, then by comparing inputs product_category = Jackets with all other inputs, then by comparing inputs product_category = Jeans with all other inputs, then by comparing inputs product_category = Layering with all other inputs, then by comparing inputs product_category = Legwear with all other inputs, then by comparing inputs product_category = Duterwear with all other inputs, then by comparing inputs product_category = Pants with all other inputs, then by comparing inputs product_category = Skirts with all other inputs, then by comparing inputs product_category = Sleep with all other inputs, then by comparing inputs product_category = Sleep with all other inputs, then by comparing inputs product_category = Sleep with all other inputs, then by comparing inputs product_category = Sleep with all other inputs, then by comparing inputs product_category = Sleep with all other inputs, then by comparing inputs product_category = Sleep with all other inputs, then by comparing inputs product_category = Sleep with all other inputs, then by comparing inputs

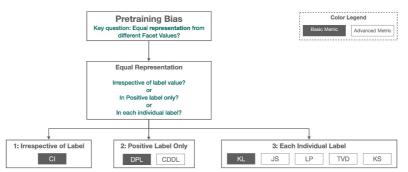
product_category = Swim with all other inputs, then by comparing inputs product_category = Trend with all other inputs.

The figure below shows the distribution of values of product category .



Pre-training Bias Metrics

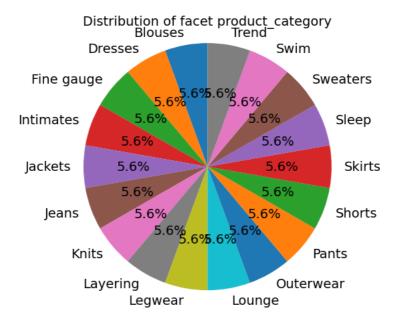
Pretraining bias metrics measure imbalances in facet value representation in the training data. Imbalances can be measured across different dimensions. For instance, you could focus imbalances within the inputs with positive observed label only. The figure below shows how different pretraining bias metrics focus on different dimensions. For a detailed description of these dimensions, see <u>Learn How Amazon SageMaker Clarify Helps Detect Bias</u>.



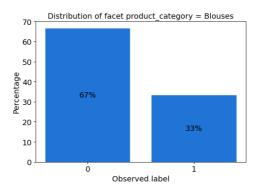
The metric values along with an informal description of what they mean are shown below. For mathematical formulas and examples, see the <u>Measure Pretraining Bias</u> section of the AWS documentation.

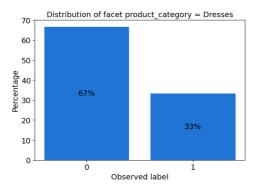
We computed the bias metrics for the label sentiment using label value(s)/threshold sentiment = 1 for the following facets:

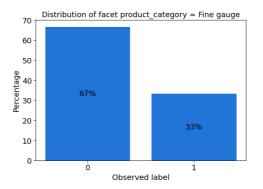
• Facet column: **product_category**The pie chart shows the distribution of facet column | product_category | in your data.

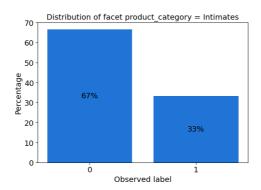


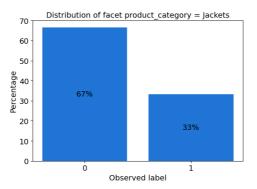
The bar plot(s) below show the distribution of facet column product_category in your data.

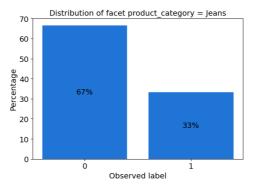


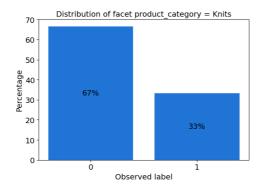


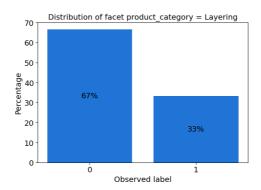


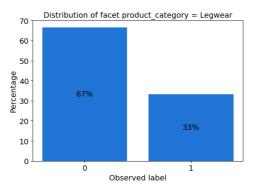


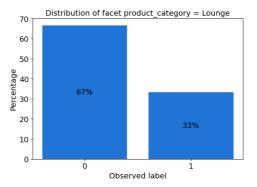


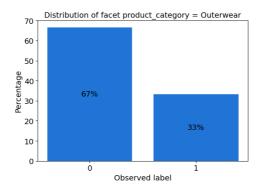


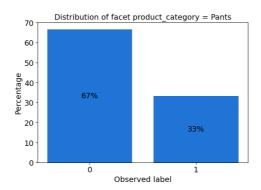


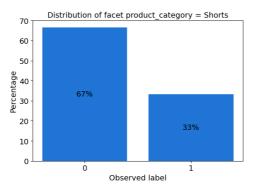


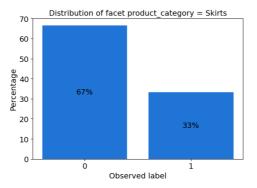


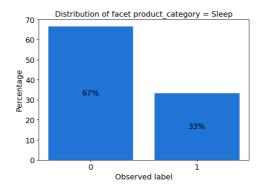


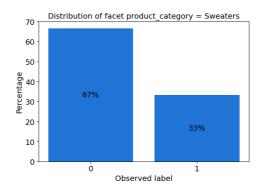


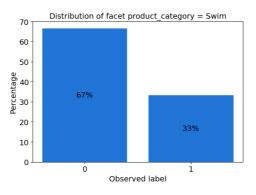


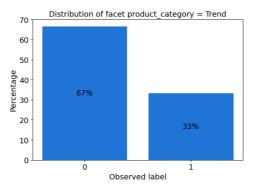












Facet Value(s)/Threshold: product_category = Blouses

Difference in Proportions of Labels (DPL) Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Jensen-Shannon Divergence (JS) Kullback-Leibler Divergence (KL) Kolmogorov-Smirnov (KS) Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures maximum divergence between the observed label distributions for facet values Sex=0 and rest of the inputs in the dataset. Lp-norm (LP) Measures a p-norm difference between the observed label distributions associated with facet values Sex=0 rest of the inputs in the dataset. Measures half of the L1-norm difference between the observed label distributions associated 0.000	Value	Description	Metric
Proportions of Labels (DPL) Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs.	0.889	Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs.	Class Imbalance (CI)
Divergence (JS) Kullback-Leibler Divergence (KL) Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Kolmogorov-Smirnov (KS) Measures maximum divergence between the observed label distributions for facet values Sex=0 and rest of the inputs in the dataset. Lp-norm (LP) Measures a p-norm difference between the observed label distributions associated with facet values Sex=0 rest of the inputs in the dataset. Measures half of the L1-norm difference between the observed label distributions associated 0.000	0.000	·	Proportions of Labels
Divergence (KL) Kolmogorov-Smirnov (KS) Measures maximum divergence between the observed label distributions for facet values Sex=0 and rest of the inputs in the dataset. Lp-norm (LP) Measures a p-norm difference between the observed label distributions associated with facet values Sex=0 rest of the inputs in the dataset. Total Variation Distance Measures half of the L1-norm difference between the observed label distributions associated 0.000	0.000		
Sex=0 and rest of the inputs in the dataset. Lp-norm (LP) Measures a p-norm difference between the observed label distributions associated with facet values Sex=0 rest of the inputs in the dataset. Total Variation Distance Measures half of the L1-norm difference between the observed label distributions associated 0.000	0.000		
values Sex=0 rest of the inputs in the dataset. Total Variation Distance Measures half of the L1-norm difference between the observed label distributions associated	0.000	<u> </u>	
0.00	0.000	·	<u>Lp-norm (LP)</u>
with facet values sex—0 and fest of the inputs in the dataset.	0.000	Measures half of the L1-norm difference between the observed label distributions associated with facet values Sex=0 and rest of the inputs in the dataset.	Total Variation Distance (TVD)

Facet Value(s)/Threshold: product_category = Dresses

Description	Value
Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs.	0.889
Measures the imbalance of positive observed labels between facet values $Sex=0$ and rest of the inputs.	0.000
Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Measures maximum divergence between the observed label distributions for facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
Measures a p-norm difference between the observed label distributions associated with facet values Sex=0 rest of the inputs in the dataset.	0.000
Measures half of the L1-norm difference between the observed label distributions associated with facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
old: product_category = Fine gauge	
Description	Value
Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs.	0.889
Measures the imbalance of positive observed labels between facet values $Sex=0$ and rest of the inputs.	0.000
Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Measures maximum divergence between the observed label distributions for facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
Measures a p-norm difference between the observed label distributions associated with facet values $Sex=0$ rest of the inputs in the dataset.	0.000
Measures half of the L1-norm difference between the observed label distributions associated with facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
with facet values Sex—0 and rest of the inputs in the dataset.	0.000
old: product_category = Intimates	0.000
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old: product_category = Intimates	
old: product_category = Intimates Description	Value
Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of	Value 0.889
Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the	Value 0.889 0.000
Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the	Value 0.889 0.000 0.000
Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures maximum divergence between the observed label distributions for facet values	Value 0.889 0.000 0.000 0.000
	Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures maximum divergence between the observed label distributions for facet values Sex=0 and rest of the inputs in the dataset. Measures a p-norm difference between the observed label distributions associated with facet values Sex=0 rest of the inputs in the dataset. Measures half of the L1-norm difference between the observed label distributions associated with facet values Sex=0 and rest of the inputs in the dataset. Did: product_category = Fine gauge Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures maximum divergence between the observed label distributions for facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures maximum divergence between the observed label distributions for facet values Sex=0 and rest of the inputs in the dataset. Measures a p-norm difference between the observed label distributions associated with facet values Sex=0 and rest of the inputs in the dataset.

Description	Value
Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs.	0.889
Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs.	0.000
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Measures maximum divergence between the observed label distributions for facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
Measures a p-norm difference between the observed label distributions associated with facet values Sex=0 rest of the inputs in the dataset.	0.000
Measures half of the L1-norm difference between the observed label distributions associated with facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
old: product_category = Jeans	
Description	Value
Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs.	0.889
Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs.	0.000
Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Measures maximum divergence between the observed label distributions for facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
Measures a p-norm difference between the observed label distributions associated with facet values $Sex=0$ rest of the inputs in the dataset.	0.000
Measures half of the L1-norm difference between the observed label distributions associated	
with facet values Sex=0 and rest of the inputs in the dataset.	0.000
with facet values Sex=0 and rest of the inputs in the dataset. old: product_category = Knits	0.000
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old: product_category = Knits	
old: product_category = Knits Description	Value
Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of	Value 0.889
Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the	Value 0.889 0.000
Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the	Value 0.889 0.000 0.000
Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures maximum divergence between the observed label distributions for facet values	Value 0.889 0.000 0.000
	Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures maximum divergence between the observed label distributions for facet values Sex=0 and rest of the inputs in the dataset. Measures a p-norm difference between the observed label distributions associated with facet values Sex=0 rest of the inputs in the dataset. Measures half of the L1-norm difference between the observed label distributions associated with facet values Sex=0 and rest of the inputs in the dataset. Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures maximum divergence between the observed label distributions for facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures maximum divergence between the observed label distributions for facet values Sex=0 and rest of the inputs in the dataset.

 $Facet\ Value(s)/Threshold:\ product_category = Layering$

	Description	Value
Class Imbalance (CI)	Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs.	0.889
<u>Difference in</u> <u>Proportions of Labels</u> (DPL)	Measures the imbalance of positive observed labels between facet values $Sex=0$ and rest of the inputs.	0.000
Jensen-Shannon Divergence (JS)	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
<u>Kullback-Leibler</u> <u>Divergence (KL)</u>	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Kolmogorov-Smirnov (KS)	Measures maximum divergence between the observed label distributions for facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
<u>Lp-norm (LP)</u>	Measures a p-norm difference between the observed label distributions associated with facet values $Sex=0$ rest of the inputs in the dataset.	0.000
Total Variation Distance (TVD)	Measures half of the L1-norm difference between the observed label distributions associated with facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
Facet Value(s)/Thresho	old: product_category = Legwear	
Metric	Description	Value
Class Imbalance (CI)	Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs.	0.889
Difference in Proportions of Labels (DPL)	Measures the imbalance of positive observed labels between facet values $Sex=0$ and rest of the inputs.	0.000
Jensen-Shannon Divergence (JS)	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
<u>Kullback-Leibler</u> <u>Divergence (KL)</u>	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Kolmogorov-Smirnov (KS)	Measures maximum divergence between the observed label distributions for facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
<u>Lp-norm (LP)</u>	Measures a p-norm difference between the observed label distributions associated with facet values $Sex=0$ rest of the inputs in the dataset.	0.000
Total Variation Distance (TVD)	Measures half of the L1-norm difference between the observed label distributions associated with facet values Sex=0 and rest of the inputs in the dataset.	0.000
(TVD)		0.000
(TVD)	with facet values Sex=0 and rest of the inputs in the dataset.	0.000 Value
(TVD) Facet Value(s)/Thresho	with facet values Sex=0 and rest of the inputs in the dataset. old: product_category = Lounge	
(TVD) Facet Value(s)/Thresho	with facet values Sex=0 and rest of the inputs in the dataset. old: product_category = Lounge Description	Value 0.889
(TVD) Facet Value(s)/Thresho Metric Class Imbalance (CI) Difference in Proportions of Labels	with facet values Sex=0 and rest of the inputs in the dataset. old: product_category = Lounge Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of	Value 0.889 0.000
(TVD) Facet Value(s)/Thresho Metric Class Imbalance (CI) Difference in Proportions of Labels (DPL) Jensen-Shannon	with facet values Sex=0 and rest of the inputs in the dataset. Did: product_category = Lounge Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the	Value 0.889 0.000 0.000
(TVD) Facet Value(s)/Thresho Metric Class Imbalance (CI) Difference in Proportions of Labels (DPL) Jensen-Shannon Divergence (JS) Kullback-Leibler	with facet values Sex=0 and rest of the inputs in the dataset. Did: product_category = Lounge Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the	Value
(TVD) Facet Value(s)/Thresho Metric Class Imbalance (CI) Difference in Proportions of Labels (DPL) Jensen-Shannon Divergence (JS) Kullback-Leibler Divergence (KL) Kolmogorov-Smirnov	with facet values Sex=0 and rest of the inputs in the dataset. Did: product_category = Lounge Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures maximum divergence between the observed label distributions for facet values	0.889 0.000 0.000

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Metric	Description	Value
Class Imbalance (CI)	Measures the imbalance in the number of inputs with facet values $Sex=0$ and rest of the inputs.	0.889
<u>Difference in</u> <u>Proportions of Labels</u> (DPL)	Measures the imbalance of positive observed labels between facet values $Sex=0$ and rest of the inputs.	0.000
Jensen-Shannon Divergence (JS)	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
<u>Kullback-Leibler</u> <u>Divergence (KL)</u>	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Kolmogorov-Smirnov (KS)	Measures maximum divergence between the observed label distributions for facet values ${\sf Sex=0} \ \ {\sf and} \ \ {\sf rest} \ \ {\sf of} \ \ {\sf the} \ \ {\sf inputs} \ \ {\sf in} \ \ {\sf the} \ \ {\sf dataset}.$	0.000
<u>Lp-norm (LP)</u>	Measures a p-norm difference between the observed label distributions associated with facet values $Sex=0$ rest of the inputs in the dataset.	0.000
Total Variation Distance (TVD)	Measures half of the L1-norm difference between the observed label distributions associated with facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
Facet Value(s)/Thresho	old: product_category = Sleep	
Metric	Description	Value
Class Imbalance (CI)	Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs.	0.889
<u>Difference in</u> <u>Proportions of Labels</u> (DPL)	Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs.	0.000
<u>Jensen-Shannon</u> <u>Divergence (JS)</u>	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
<u>Kullback-Leibler</u> <u>Divergence (KL)</u>	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Kolmogorov-Smirnov (KS)	Measures maximum divergence between the observed label distributions for facet values ${\sf Sex=0} \ \ {\sf and} \ \ {\sf rest} \ \ {\sf of} \ \ {\sf the} \ \ {\sf inputs} \ \ {\sf in} \ \ {\sf the} \ \ {\sf dataset}.$	0.000
<u>Lp-norm (LP)</u>	Measures a p-norm difference between the observed label distributions associated with facet values $Sex=0$ rest of the inputs in the dataset.	0.000
Total Variation Distance (TVD)	Measures half of the L1-norm difference between the observed label distributions associated with facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
Facet Value(s)/Thresho	old: product_category = Sweaters	
Metric	Description	Value
Class Imbalance (CI)	Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs.	0.889
<u>Difference in</u> <u>Proportions of Labels</u> (DPL)	Measures the imbalance of positive observed labels between facet values $Sex=0$ and rest of the inputs.	0.000
<u>Jensen-Shannon</u> <u>Divergence (JS)</u>	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
<u>Kullback-Leibler</u> <u>Divergence (KL)</u>	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Kolmogorov-Smirnov (KS)	Measures maximum divergence between the observed label distributions for facet values ${\sf Sex=0} \ \ {\sf and} \ \ {\sf rest} \ \ {\sf of} \ \ {\sf the} \ \ {\sf inputs} \ \ {\sf in} \ \ {\sf the} \ \ {\sf dataset}.$	0.000
<u>Lp-norm (LP)</u>	Measures a p-norm difference between the observed label distributions associated with facet values $Sex=0$ rest of the inputs in the dataset.	0.000
Total Variation Distance (TVD)	Measures half of the L1-norm difference between the observed label distributions associated with facet values $Sex=0$ and rest of the inputs in the dataset.	0.000
acet Value(s)/Thresho	old: product_category = Swim	

Metric	Description	Value
Class Imbalance (CI)	Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs.	0.889
<u>Difference in</u> <u>Proportions of Labels</u> (DPL)	Measures the imbalance of positive observed labels between facet values $Sex=0$ and rest of the inputs.	0.000
Jensen-Shannon Divergence (JS)	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Kullback-Leibler Divergence (KL)	Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically.	0.000
Kolmogorov-Smirnov (KS)	Measures maximum divergence between the observed label distributions for facet values ${\sf Sex=0} \ \ {\sf and} \ {\sf rest} \ \ {\sf of} \ \ {\sf the} \ \ {\sf inputs} \ \ {\sf in} \ \ {\sf the} \ \ {\sf dataset}.$	0.000
<u>Lp-norm (LP)</u>	Measures a p-norm difference between the observed label distributions associated with facet values $Sex=0$ rest of the inputs in the dataset.	0.000
Total Variation Distance	Measures half of the L1-norm difference between the observed label distributions associated	0.000
Total Variation Distance (TVD)	with facet values Sex=0 and rest of the inputs in the dataset.	0.000
(TVD)		0.000
(TVD)	with facet values Sex=0 and rest of the inputs in the dataset.	
Facet Value(s)/Thresho	with facet values Sex=0 and rest of the inputs in the dataset. old: product_category = Trend Description	
Facet Value(s)/Thresho	with facet values Sex=0 and rest of the inputs in the dataset. old: product_category = Trend Description	Value
Facet Value(s)/Thresho Metric Class Imbalance (CI) Difference in Proportions of Labels	with facet values Sex=0 and rest of the inputs in the dataset. Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of	Value 0.889
(TVD) Facet Value(s)/Thresho Metric Class Imbalance (CI) Difference in Proportions of Labels (DPL) Jensen-Shannon	with facet values Sex=0 and rest of the inputs in the dataset. Did: product_category = Trend Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the	Value 0.889 0.000
Facet Value(s)/Thresho Metric Class Imbalance (CI) Difference in Proportions of Labels (DPL) Jensen-Shannon Divergence (JS) Kullback-Leibler	with facet values Sex=0 and rest of the inputs in the dataset. Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the	Value 0.889 0.000 0.000
(TVD) Facet Value(s)/Thresho Metric Class Imbalance (CI) Difference in Proportions of Labels (DPL) Jensen-Shannon Divergence (JS) Kullback-Leibler Divergence (KL) Kolmogorov-Smirnov	with facet values Sex=0 and rest of the inputs in the dataset. Description Measures the imbalance in the number of inputs with facet values Sex=0 and rest of the inputs. Measures the imbalance of positive observed labels between facet values Sex=0 and rest of the inputs. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures how much the observed label distributions of facet values Sex=0 and rest of the inputs diverge from each other entropically. Measures maximum divergence between the observed label distributions for facet values	0.889 0.000 0.000

with facet values Sex=0 and rest of the inputs in the dataset.

Appendix: Analysis Configuration Parameters

```
"dataset_type": "text/csv",
"headers": [
  "sentiment",
  "review_body",
  "product_category"
],
"label": "sentiment",
"label_values_or_threshold": [
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],
"facet": [
     "name_or_index": "product_category"
  }
"methods": {
  "pre_training_bias": {
     "methods": [
       "CI",
       "DPL",
       "KL",
       "JS",
       "LP",
       "TVD",
       "KS"
```

(TVD)

```
]
},
"report": {
    "name": "report",
    "title": "Analysis Report"
}
}
```