

# Analysis Report

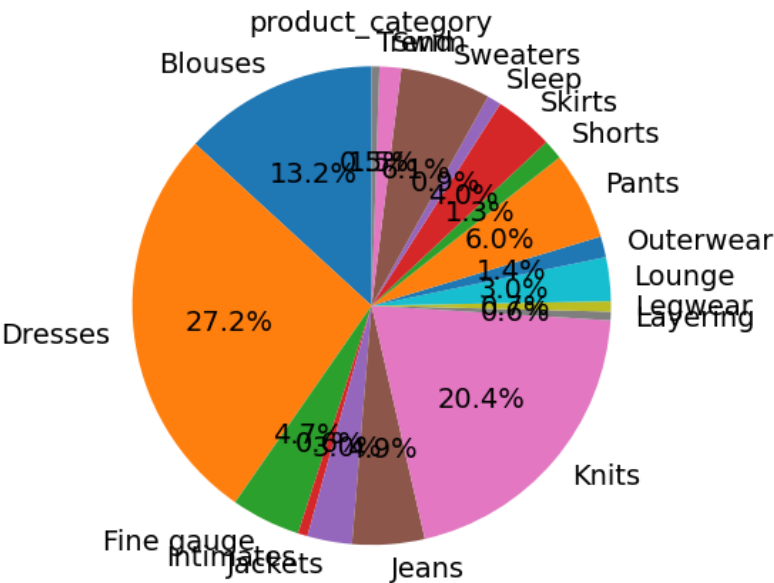
We report the following SageMaker analysis.

## Pre-training Bias Metrics

We computed the bias metrics for the label `sentiment` using label value(s)/threshold `1`.

- `product_category`

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



Value(s)/Threshold: Blouses

name	description	value
CI	Class Imbalance (CI)	0.736321
DPL	Difference in Positive Proportions in Labels (DPL)	0.016356
JS	Jensen-Shannon Divergence (JS)	0.000186
KL	Kullback-Liebler Divergence (KL)	0.000737
KS	Kolmogorov-Smirnov Distance (KS)	0.016356
LP	L-p Norm (LP)	0.023131
TVD	Total Variation Distance (TVD)	0.016356

Value(s)/Threshold: Dresses

name	description	value
CI	Class Imbalance (CI)	0.45682
DPL	Difference in Positive Proportions in Labels (DPL)	0.022482
JS	Jensen-Shannon Divergence (JS)	0.000352
KL	Kullback-Liebler Divergence (KL)	0.001392
KS	Kolmogorov-Smirnov Distance (KS)	0.022482
LP	L-p Norm (LP)	0.031795
TVD	Total Variation Distance (TVD)	0.022482

Value(s)/Threshold: Pants

name	description	value
CI	Class Imbalance (CI)	0.880668
DPL	Difference in Positive Proportions in Labels (DPL)	-0.026661
JS	Jensen-Shannon Divergence (JS)	0.000522
KL	Kullback-Liebler Divergence (KL)	0.002119
KS	Kolmogorov-Smirnov Distance (KS)	0.026661
LP	L-p Norm (LP)	0.037704
TVD	Total Variation Distance (TVD)	0.026661

Value(s)/Threshold: Knits

name	description	value
CI	Class Imbalance (CI)	0.59109
DPL	Difference in Positive Proportions in Labels (DPL)	0.011213
JS	Jensen-Shannon Divergence (JS)	0.000088
KL	Kullback-Liebler Divergence (KL)	0.00035
KS	Kolmogorov-Smirnov Distance (KS)	0.011213
LP	L-p Norm (LP)	0.015857
TVD	Total Variation Distance (TVD)	0.011213

Value(s)/Threshold: Intimates

name	description	value
CI	Class Imbalance (CI)	0.987006
DPL	Difference in Positive Proportions in Labels (DPL)	-0.025599
JS	Jensen-Shannon Divergence (JS)	0.000483
KL	Kullback-Liebler Divergence (KL)	0.001959
KS	Kolmogorov-Smirnov Distance (KS)	0.025599
LP	L-p Norm (LP)	0.036203
TVD	Total Variation Distance (TVD)	0.025599

Value(s)/Threshold: Outerwear

name	description	value
CI	Class Imbalance (CI)	0.971802
DPL	Difference in Positive Proportions in Labels (DPL)	-0.026121
JS	Jensen-Shannon Divergence (JS)	0.000503
KL	Kullback-Liebler Divergence (KL)	0.00204
KS	Kolmogorov-Smirnov Distance (KS)	0.026121
LP	L-p Norm (LP)	0.036941
TVD	Total Variation Distance (TVD)	0.026121

Value(s)/Threshold: Lounge

name	description	value
CI	Class Imbalance (CI)	0.940864
DPL	Difference in Positive Proportions in Labels (DPL)	-0.045509
JS	Jensen-Shannon Divergence (JS)	0.001573
KL	Kullback-Liebler Divergence (KL)	0.006474
KS	Kolmogorov-Smirnov Distance (KS)	0.045509
LP	L-p Norm (LP)	0.06436
TVD	Total Variation Distance (TVD)	0.045509

Value(s)/Threshold: Sweaters

name	description	value
CI	Class Imbalance (CI)	0.878016
DPL	Difference in Positive Proportions in Labels (DPL)	0.021044
JS	Jensen-Shannon Divergence (JS)	0.000305
KL	Kullback-Liebler Divergence (KL)	0.001207
KS	Kolmogorov-Smirnov Distance (KS)	0.021044
LP	L-p Norm (LP)	0.029761
TVD	Total Variation Distance (TVD)	0.021044

Value(s)/Threshold: Skirts

name	description	value
CI	Class Imbalance (CI)	0.92018
DPL	Difference in Positive Proportions in Labels (DPL)	-0.021053
JS	Jensen-Shannon Divergence (JS)	0.000323
KL	Kullback-Liebler Divergence (KL)	0.001308
KS	Kolmogorov-Smirnov Distance (KS)	0.021053
LP	L-p Norm (LP)	0.029773
TVD	Total Variation Distance (TVD)	0.021053

Value(s)/Threshold: Fine gauge

name	description	value
CI	Class Imbalance (CI)	0.906391
DPL	Difference in Positive Proportions in Labels (DPL)	-0.020859
JS	Jensen-Shannon Divergence (JS)	0.000317
KL	Kullback-Liebler Divergence (KL)	0.001283
KS	Kolmogorov-Smirnov Distance (KS)	0.020859
LP	L-p Norm (LP)	0.0295
TVD	Total Variation Distance (TVD)	0.020859

Value(s)/Threshold: Sleep

name	description	value
CI	Class Imbalance (CI)	0.981084
DPL	Difference in Positive Proportions in Labels (DPL)	-0.047723
JS	Jensen-Shannon Divergence (JS)	0.001743
KL	Kullback-Liebler Divergence (KL)	0.007185
KS	Kolmogorov-Smirnov Distance (KS)	0.047723
LP	L-p Norm (LP)	0.067491
TVD	Total Variation Distance (TVD)	0.047723

Value(s)/Threshold: Jackets

name	description	value
CI	Class Imbalance (CI)	0.939627
DPL	Difference in Positive Proportions in Labels (DPL)	-0.035868
JS	Jensen-Shannon Divergence (JS)	0.000961
KL	Kullback-Liebler Divergence (KL)	0.003928
KS	Kolmogorov-Smirnov Distance (KS)	0.035868
LP	L-p Norm (LP)	0.050725
TVD	Total Variation Distance (TVD)	0.035868

Value(s)/Threshold: Swim

name	description	value
CI	Class Imbalance (CI)	0.970653
DPL	Difference in Positive Proportions in Labels (DPL)	0.01162
JS	Jensen-Shannon Divergence (JS)	0.000094
KL	Kullback-Liebler Divergence (KL)	0.000373
KS	Kolmogorov-Smirnov Distance (KS)	0.01162
LP	L-p Norm (LP)	0.016433
TVD	Total Variation Distance (TVD)	0.01162

Value(s)/Threshold: Trend

name	description	value
CI	Class Imbalance (CI)	0.98957
DPL	Difference in Positive Proportions in Labels (DPL)	0.110042
JS	Jensen-Shannon Divergence (JS)	0.00748
KL	Kullback-Liebler Divergence (KL)	0.028876
KS	Kolmogorov-Smirnov Distance (KS)	0.110042
LP	L-p Norm (LP)	0.155623
TVD	Total Variation Distance (TVD)	0.110042

Value(s)/Threshold: Jeans

name	description	value
CI	Class Imbalance (CI)	0.902413
DPL	Difference in Positive Proportions in Labels (DPL)	-0.055597
JS	Jensen-Shannon Divergence (JS)	0.002382
KL	Kullback-Liebler Divergence (KL)	0.009875
KS	Kolmogorov-Smirnov Distance (KS)	0.055597
LP	L-p Norm (LP)	0.078626
TVD	Total Variation Distance (TVD)	0.055597

Value(s)/Threshold: Legwear

name	description	value
CI	Class Imbalance (CI)	0.986034
DPL	Difference in Positive Proportions in Labels (DPL)	-0.027173
JS	Jensen-Shannon Divergence (JS)	0.000545
KL	Kullback-Liebler Divergence (KL)	0.002215
KS	Kolmogorov-Smirnov Distance (KS)	0.027173
LP	L-p Norm (LP)	0.038428
TVD	Total Variation Distance (TVD)	0.027173

Value(s)/Threshold: Shorts

name	description	value
CI	Class Imbalance (CI)	0.973128
DPL	Difference in Positive Proportions in Labels (DPL)	-0.019247
JS	Jensen-Shannon Divergence (JS)	0.00027
KL	Kullback-Liebler Divergence (KL)	0.001091
KS	Kolmogorov-Smirnov Distance (KS)	0.019247
LP	L-p Norm (LP)	0.027219
TVD	Total Variation Distance (TVD)	0.019247

Value(s)/Threshold: Layering

name	description	value
CI	Class Imbalance (CI)	0.988332
DPL	Difference in Positive Proportions in Labels (DPL)	-0.086077
JS	Jensen-Shannon Divergence (JS)	0.006138
KL	Kullback-Liebler Divergence (KL)	0.026226
KS	Kolmogorov-Smirnov Distance (KS)	0.086077
LP	L-p Norm (LP)	0.121732
TVD	Total Variation Distance (TVD)	0.086077