

Telco-Customer-Churn Dataset :

logistic regression

Performance measure	Train	Test
Accuracy	0.7722	0.7281
True positive rate (sensitivity, recall, hit rate)	0.71139	0.7823
True negative rate (specificity)	0.8002	0.7077
Positive predictive value(precision)	0.5599	0.5024
False discovery rate	0.44002	0.4975
F1 score	0.62667	0.6119

Adaboost implementation with logistic regression:

Number of boosting rounds	Train	Test
5	0.7770	0.7870
10	0.7859	0.7743
15	0.7818	0.7572
20	0.7722	0.7757

Adult Dataset :

logistic regression

Performance measure	Train	Test
Accuracy	0.78213	0.7768
True positive rate (sensitivity, recall, hit rate)	0.8527	0.8575
True negative rate (specificity)	0.7598	0.7509
Positive predictive value(precision)	0.5287	0.5257
False discovery rate	0.47125	0.47429
F1 score	0.6527	0.65180

Adaboost implementation with logistic regression:

Number of boosting rounds	Train	Test
5	0.78201	0.77825
10	0.78171	0.7756
15	0.77568	0.7722
20	0.77441	0.77733

Creditcard Dataset :

logistic regression

Performance measure	Train	Test
Accuracy	0.99884	0.9989
True positive rate (sensitivity, recall, hit rate)	0.41025	0.4607
True negative rate (specificity)	0.99985	0.9998
Positive predictive value(precision)	0.82901	0.87037
False discovery rate	0.17098	0.129629
F1 score	0.54888	0.60256

Adaboost implementation with logistic regression:

Number of boosting rounds	Train	Test
5	0.99168	0.99720
10	0.99183	0.99682
15	0.99365	0.99682
20	0.99168	0.99682

How to run the script:

- > python 1605028.py
- > give a choice between 1 to 3
- > for the selected dataset, logistic regression and Adaboost algorithm will be calculated