

First Dataset (Churn)

Logistic Regression:

Performance measure	Training	Test
Accuracy	80.13	79.48
Sensitivity	53.92	50.13
Specificity	89.66	89.82
Precision	89.66	63.44
False discovery rate	34.51	36.55
F1 Score	59.14	56.01

Adaboost:

Boosting Rounds	Training	Test
5	79.75	78.92
10	79.74	78.85
15	79.25	78.85
20	79.16	78.85

Second Dataset (Income)

Logistic Regression:

Performance measure	Training	Test
Accuracy	85.25	84.85
Sensitivity	61.38	58.54
Specificity	93.17	93.42
Precision	74.87	74.35
False discovery rate	25.12	25.64
F1 Score	67.46	65.50

Adaboost:

Boosting Rounds	Training	Test
5	81.59	84.08
10	84.21	84.12
15	84.29	84.18
20	84.27	84.16

Third Dataset (Credit Card)

Logistic Regression:

Performance measure	Training	Test
Accuracy	91.94	91.56
Sensitivity	92.94	92.63
Specificity	91.89	91.51
Precision	36.28	34.10
False discovery rate	63.71	65.89
F1 Score	52.19	49.85

Adaboost:

Boosting Rounds	Training	Test
5	92.04	91.42
10	92.03	91.41
15	92.04	91.43
20	92.05	91.42

Instructions to run

- At the beginning of the main function there are three blocks of code, each for one of the datasets.
- To run the script just comment out two of the blocks leaving one to be executed.
- Make sure to have the input csv files in the same folder as the script