

Assignment-2 Report

## **Logistic Regression and AdaBoost**

CSE-472 : Machine Learning Sessional

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Section: B1

## TELCO DATASET

Epoch: 1000

Performance Measure	Training	Test
Accuracy	79.48%	81.97%
True Positive Rate	50.67%	58.98%
True Negative Rate	89.90%	90.25%
Positive Predictive Value	64.46%	68.54%
False Discovery Rate	35.54%	31.46%
F1 Score	56.74%	63.4%

Epoch: 1000

Number of Boosting Rounds	Training	Test
5	79.2%	81.9%
10	78.67%	81.9%
15	78.52%	81.55%
20	78.81%	81.33%

## **ADULT DATASET**

Epoch: 1000

<b>Performance Measure</b>	<b>Training</b>	<b>Test</b>
Accuracy	81.92%	84.28%
True Positive Rate	50.55%	55.56%
True Negative Rate	91.87%	93.16%
Positive Predictive Value	66.37%	71.54%
False Discovery Rate	33.63%	28.46%
F1 Score	57.39%	62.55%

Epoch: 1000

<b>Number of Boosting Rounds</b>	<b>Training</b>	<b>Test</b>
5	82.23%	84.38%
10	81.0%	84.31%
15	80.57%	84.34%
20	81.12%	84.32%

## CREDIT-CARD DATASET

Epoch: 1000

Performance Measure	Training	Test
Accuracy	99.85%	99.88%
True Positive Rate	16.84%	48.21%
True Negative Rate	99.99%	99.98%
Positive Predictive Value	69.57%	83.08%
False Discovery Rate	30.43%	16.92%
F1 Score	27.12%	61.02%

Epoch: 1000

Number of Boosting Rounds	Training	Test
5	99.79%	99.88%
10	99.8%	99.87%
15	99.73%	99.89%
20	99.78%	99.88%