

# CSE 472

## Decision Tree Report

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### Adult Dataset Decision Tree

Performance measure	Training(%)	Test(%)
Accuracy	90.1385	79.4238
True positive rate (sensitivity, recall, hit rate)	77.3625	20.8268
True negative rate (specificity)	94.1909	97.5472
Positive predictive value (precision)	80.8584	72.4231
False discovery rate	19.1415	27.5768
F1 score	79.0718	32.3505

### Adult Dataset Adaboost

Number of boosting rounds	Training(%)	Test(%)
5	82.0060	82.1755
10	83.9961	84.0611
15	84.1988	84.2270
20	84.5582	84.4972

### Telco Dataset Decision Tree

Performance measure	Training(%)	Test(%)
Accuracy	94.6219	73.1724
True positive rate (sensitivity, recall, hit rate)	92.8954	47.4801
True negative rate (specificity)	95.2438	82.5581
Positive predictive value (precision)	87.5552	49.8607
False discovery rate	12.4447	50.1392
F1 score	90.1463	48.6413

## Telco Dataset Adaboost

Number of boosting rounds	Training(%)	Test(%)
5	79.3574	78.3534
10	79.1799	79.0631
15	80.2094	79.2051
20	80.7951	79.5599

## Creditcard Dataset Decision Tree

Performance measure	Training(%)	Test(%)
Accuracy	99.7254	99.4388
True positive rate (sensitivity, recall, hit rate)	89.3401	80.6122
True negative rate (specificity)	99.9812	99.9000
Positive predictive value (precision)	99.1549	95.1807
False discovery rate	00.8450	04.8192
F1 score	93.9919	87.2928

## Creditcard Dataset Adaboost

Number of boosting rounds	Training(%)	Test(%)
5	99.2618	99.3169
10	99.2679	99.2925
15	99.3350	99.5608
20	99.3777	99.1217