

1.Telco Data

| Performance | Training | Test |
|--|--------------------|---------|
| Accuracy | 0.80 | 0.82 |
| True positive rate (sensitivity, recall, hit rate) | 0.5521996060407092 | 0.604 |
| True negative rate (specificity) | 0.8917538311846266 | 0.89087 |
| Positive predictive value (precision) | .841 | 0.819 |
| False discovery rate | .34 | 0.35 |
| F1 score | .591 | 0.6229 |

2.Adult Data

| Performance | Training | Test |
|--|----------|-------|
| Accuracy | 0.2408 | 0.234 |
| True positive rate (sensitivity, recall, hit rate) | 1 | 1 |
| True negative rate (specificity) | 0 | 1 |
| Positive predictive value (precision) | .24 | 0.23 |
| False discovery rate | .759 | 0.763 |
| F1 score | .388 | 0.38 |

3.CreditCard Data

| Performance | Training | Test |
|--|----------|-------|
| Accuracy | 0.990 | 0.991 |
| True positive rate (sensitivity, recall, hit rate) | 0.52 | 0.564 |
| True negative rate (specificity) | 0.998 | 0.998 |
| Positive predictive value (precision) | .990 | 0.991 |
| False discovery rate | .12 | 0.178 |
| F1 score | .686 | 0.637 |

Adaboost:

Telco Data:

| Number of Boosting Rounds | Training | Boosting |
|---------------------------|------------------|-------------------|
| 5 | .800106515178413 | .8004828173814256 |
| 10 | .800106515178413 | .801476853166714 |
| 15 | .800106515178413 | .7987787560352173 |
| 20 | .800106515178413 | .7997727918205055 |

Adult Data:

| Number of Boosting Rounds | Training | Boosting |
|---------------------------|----------|----------|
| 5 | 0.24 | .7607 |
| 10 | 0.24 | 0.7596 |
| 15 | 0.24 | 0.7596 |
| 20 | 0.24 | 0.76 |

Credit Data:

| Number of Boosting Rounds | Training | Boosting |
|---------------------------|----------|----------|
| 5 | 0.991 | 0.172 |
| 10 | 0.991 | 0.172 |
| 15 | 0.991 | 0.172 |
| 20 | | |

Run:**python3 1605097.py**