Random Forest Classification

Accuracy:

1. What is the percentage of correct classification of both (purchased and not purchased) to the total input of the test set? **0.93**

2. What is the overall performance of the model? **0.93**

Recall:

3. What is the percentage of correct classification of (purchased) to the total input of (purchased) in the test set? **0.92**

4. What is the percentage of correct classification of (not purchased) to the total input of (not purchased) in the test set? **0.93**

Precision:

5. What is the percentage of correct classification of (purchased) to sum of correctly classified as (purchased) and wrongly classified as (purchased) in the test set? **0.88**

6. What is the percentage of correct classification of (not purchased) to sum of correctly classified as (not purchased) and wrongly classified as (not purchased) in the test set? **0.95**

F1 measure:

7. What is the overall performance of Purchased? **0.90**

8. What is the overall performance of Not Purchased? **0.94**

Macro Average:

9. What is the average performance of precision (correctly and wrongly classified)? **0.92**

10. What is the average performance of recall (correctly classified)? **0.92**

11. What is the average performance of f1 measure (overall performance)? **0.92**

Weighted average:

12. What is the sum of product of proportion rate (weight) of each class in precision? **0.93**

13. What is the sum of product of proportion rate (weight) of each class in recall? **0.93**

14. What is the sum of product of proportion rate (weight) of each class in f1 measure? **0.93**

Decision Tree Classification

Accuracy:

1. What is the percentage of correct classification of both (purchased and not purchased) to the total input of the test set? **0.87**

2. What is the overall performance of the model? **0.87**

Recall:

3. What is the percentage of correct classification of (purchased) to the total input of (purchased) in the test set? **0.84**

4. What is the percentage of correct classification of (not purchased) to the total input of (not purchased) in the test set? **0.89**

Precision:

5. What is the percentage of correct classification of (purchased) to sum of correctly classified as (purchased) and wrongly classified as (purchased) in the test set? **0.82**

6. What is the percentage of correct classification of (not purchased) to sum of correctly classified as (not purchased) and wrongly classified as (not purchased) in the test set? **0.90**

F1 measure:

7. What is the overall performance of Purchased? **0.83**

8. What is the overall performance of Not Purchased? **0.90**

Macro Average:

9. What is the average performance of precision (correctly and wrongly classified)? **0.86**

10. What is the average performance of recall (correctly classified)? **0.87**

11. What is the average performance of f1 measure (overall performance)? **0.86**

Weighted average:

12. What is the sum of product of proportion rate (weight) of each class in precision? **0.87**

13. What is the sum of product of proportion rate (weight) of each class in recall? **0.87**

14. What is the sum of product of proportion rate (weight) of each class in f1 measure? **0.87**

Support Vector Machine Classification

Accuracy:

1. What is the percentage of correct classification of both (purchased and not purchased) to the total input of the test set? **0.78**

2. What is the overall performance of the model? **0.78**

Recall:

3. What is the percentage of correct classification of (purchased) to the total input of (purchased) in the test set? **0.47**

4. What is the percentage of correct classification of (not purchased) to the total input of (not purchased) in the test set? **0.96**

Precision:

5. What is the percentage of correct classification of (purchased) to sum of correctly classified as (purchased) and wrongly classified as (purchased) in the test set? **0.88**

6. What is the percentage of correct classification of (not purchased) to sum of correctly classified as (not purchased) and wrongly classified as (not purchased) in the test set? **0.76**

F1 measure:

7. What is the overall performance of Purchased? **0.61**

8. What is the overall performance of Not Purchased? **0.85**

Macro Average:

9. What is the average performance of precision (correctly and wrongly classified)? **0.82**

10. What is the average performance of recall (correctly classified)? **0.72**

11. What is the average performance of f1 measure (overall performance)? **0.73**

Weighted average:

12. What is the sum of product of proportion rate (weight) of each class in precision? **0.81**

13. What is the sum of product of proportion rate (weight) of each class in recall? **0.78**

14. What is the sum of product of proportion rate (weight) of each class in f1 measure? **0.76**