**Random Forest Classifier**

1. What is the overall performance of the model ? Accuracy is 0.92

(What is the percentage of correct classification of both (Purchased & Not Purchased) to the total input of test set)

1. What is the correct classification performance of Not Purchased ? Recall value is 0.92

(What is the percentage of correct classification of Not Purchased to the total input of Not Purchased in test set)

What is the correct classification performance of purchased? Recall value is 0.90

(What is the percentage of correct classification of Purchased to the total input of Purchased in test set)

1. What is the both correct and wrong classification performance of Not Purchased?

Precision value is 0.95

(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 test set)

What is the both correct and wrong classification performance of Purchased?

Precision value is 0.86

(What is the percentage of correct classification of Purchased to sum of correctly classified as Purchased and wrongly classified as Purchased in test set)

1. Overall performance of Purchased ? F1-Measure is 0.88

Overall performance of Not Purchased? F1-Measure is 0.94

Ideally, the values of both Recall and Precision should be high which indicates the model has good performance. If Recall value is high and Precision value is low or vice versa, then check how much is the F1-Measure value to know the performance of the model.

1. Total count of Not Purchased in Test data? support value is 79

Total count of Purchased in Test data? support value is 41

1. Macro Average of

Precision – 0.90 (what is the average performance of Precision(correctly and wrongly classified))

Recall – 0.91 (what is the average performance of Recall(correctly classified))

F1-Measure – 0.91 (what is the average performance of F1-Measure (overall performance))

1. Weighted Average of

Precision – 0.92 (what is the sum of product of proportion rate(weight) of each class)

Recall – 0.92 (what is the sum of product of proportion rate(weight) of each class)

F1-Measure – 0.92 (what is the sum of product of proportion rate(weight) of each class)

**Decision Tree Classifier**

1. What is the overall performance of the model ? Accuracy is 0.91

(What is the percentage of correct classification of both (Purchased & Not Purchased) to the total input of test set)

1. What is the correct classification performance of Not Purchased ? Recall value is 0.90

(What is the percentage of correct classification of Not Purchased to the total input of Not Purchased in test set)

What is the correct classification performance of purchased? Recall value is 0.93

(What is the percentage of correct classification of Purchased to the total input of Purchased in test set)

1. What is the both correct and wrong classification performance of Not Purchased?

Precision value is 0.96

(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 test set)

What is the both correct and wrong classification performance of Purchased?

Precision value is 0.83

(What is the percentage of correct classification of Purchased to sum of correctly classified as Purchased and wrongly classified as Purchased in test set)

1. Overall performance of Purchased ? F1-Measure is 0.87

Overall performance of Not Purchased? F1-Measure is 0.93

Ideally, the values of both Recall and Precision should be high which indicates the model has good performance. If Recall value is high and Precision value is low or vice versa, then check how much is the F1-Measure value to know the performance of the model.

1. Total count of Not Purchased in Test data? support value is 79

Total count of Purchased in Test data? support value is 41

1. Macro Average of

Precision – 0.89 (what is the average performance of Precision(correctly and wrongly classified))

Recall – 0.91 (what is the average performance of Recall(correctly classified))

F1-Measure – 0.90 (what is the average performance of F1-Measure (overall performance))

1. Weighted Average of

Precision – 0.91 (what is the sum of product of proportion rate(weight) of each class)

Recall – 0.91 (what is the sum of product of proportion rate(weight) of each class)

F1-Measure – 0.91 (what is the sum of product of proportion rate(weight) of each class)

**Support Vector Classifier**

1. What is the overall performance of the model ? Accuracy is 0.79

(What is the percentage of correct classification of both (Purchased & Not Purchased) to the total input of test set)

1. What is the correct classification performance of Not Purchased ? Recall value is 0.97

(What is the percentage of correct classification of Not Purchased to the total input of Not Purchased in test set)

What is the correct classification performance of purchased? Recall value is 0.44

(What is the percentage of correct classification of Purchased to the total input of Purchased in test set)

1. What is the both correct and wrong classification performance of Not Purchased?

Precision value is 0.77

(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 test set)

What is the both correct and wrong classification performance of Purchased?

Precision value is 0.90

(What is the percentage of correct classification of Purchased to sum of correctly classified as Purchased and wrongly classified as Purchased in test set)

1. Overall performance of Purchased ? F1-Measure is 0.59

Overall performance of Not Purchased? F1-Measure is 0.86

Ideally, the values of both Recall and Precision should be high which indicates the model has good performance. If Recall value is high and Precision value is low or vice versa, then check how much is the F1-Measure value to know the performance of the model.

1. Total count of Not Purchased in Test data? support value is 79

Total count of Purchased in Test data? support value is 41

1. Macro Average of

Precision – 0.83 (what is the average performance of Precision(correctly and wrongly classified))

Recall – 0.71 (what is the average performance of Recall(correctly classified))

F1-Measure – 0.73 (what is the average performance of F1-Measure (overall performance))

1. Weighted Average of

Precision – 0.81 (what is the sum of product of proportion rate(weight) of each class)

Recall – 0.79 (what is the sum of product of proportion rate(weight) of each class)

F1-Measure – 0.77 (what is the sum of product of proportion rate(weight) of each class)