All code, plots reside here:

<https://github.com/karunmj/usu-coursework/tree/master/cs5660datasc/hw/hw2>

This is a late submission (by one day) to the classification accuracy question

1. Classification accuracy of decision tree from Python’s sklearn

For the confusion matrix from test set data,

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| True label | Circle | 1108 | 1067 | 197 |
| Fireball | 733 | 991 | 117 |
| Triangle | 685 | 711 | 158 |
|  | Circle | Fireball | Triangle |
|  | Predicted label | | |

TP, TN, FP and FN along with their accuracy () are found as follows

Circle:

TP: 1108

FP: 1418

FN: 1264

TN: 1977

Accuracy: 0.534940176868

Fireball:

TP: 991

FP: 1778

FN: 850

TN: 2148

Accuracy: 0.544303797468

Triangle:

TP: 158

FP: 314

FN: 1396

TN: 3899

Accuracy: 0.703485347668