



Sheet#4 Decision Trees

1. Written Problems:

Answer exercises

Q2, Q3, Q5 from the book.
pages 495, 496

2. Coding

- Use the Face-data set we used in Assignment 1. Use the 50-50 Split for train-test split.
- Implement your** Decision Trees Classifier. Use Information Gain as a splitting measure.
- Apply your algorithm on the first 50 ,100 and 150 components using PCA separately.
- Compare and comment on the results
- Use the Random Forest classifier in Scikit learn. Use Original Data
 - Tune the number of trees {10,30,100,300}
 - Tune the tree criterion “gini” vs. “Entropy”
- Repeat part (e) using the 100 PC's in part (c).