CSc 44700

Assignment due October 27, 2021

Programming Exercise

- In this programming exercise you will apply a number of the models that you've learned so far using the Scikit Learn toolkit.
- Using the Iris dataset, build models that attempt to classify the samples into the three species to which they belong using all four features at once.

Programming Exercise

- Use the following models
  - Adaline
  - Logistic Regression
  - Support Vector Machine using the following three kernels
    - Linear
    - Polynomial
    - RBF
  - Decision Trees
  - Ada Boost
  - Random Forest

  - For the Ada Boost model, use Decision Trees as your base classifier.

Programming Exercise

- Compare the training accuracy you get for these eight models.

- Then split the 150 samples randomly into 100 training samples and 50 test samples and then rerun the eight models comparing the training and test accuracies. Use the same 100 training samples and 50 test sample for each of your eight models

- Discuss your results.

Programming Exercise

Submit your results in Blackboard as an .ipynb file naming it as last-name_first-name_AS03.ipynb.

If you collaborate with anyone on this assignment, be sure to follow the collaboration guidelines in the syllabus.