

Homework Assignment 1

(100 points)

Assigned Date: Thursday, February 7, 2013

Due Date: 4:00 PM Thursday, February 14, 2013

Educational Goal

Become familiar with the WEKA Workbench.

Requirements

Use the following learning schemes to analyze the iris data (in iris.arff):

Decision stump - weka.classifiers.DecisionStump

OneR - weka.classifiers.OneR

Decision table - weka.classifiers.DecisionTable -R

C4.5 - weka.classifiers.j48.J48

PART - weka.classifiers.j48.PART

Submission Requirements

1. Write a brief report that records how your investigations proceeded and what results you found for the following questions. Do not describe how to use the workbench or how the schemes in it work.
 - How do the classifiers determine whether a flower is an Iris-setosa, Iris-versicolor, or Iris-virginica?
 - What can you say about the accuracy of these classifiers when classifying a flower that has not been used for training?
 - Why does OneR perform so badly?
 - Which classifier performs the best?
 - Do the decisions made by the best classifier make sense to you?
2. Attach the homework cover page to your report.
3. Submit the softcopy of your report via UMassOnline. **Zero points for late submission.**

4. Turn in the paper copy of your report in class. **Paper copy should be bound firmly together as one pack (for example, staple, but not limited to, at the left corner). 5 points will be deducted for unbounded homework.**
5. No hard copies or soft copies results in 0 points.