

CSE352 Artificial Intelligence Homework 2, Part 2 - 15pts

Problem 1 1. Build a Decision Tree following ID3 (without Information Gain) Algorithm for the data set of the 14 records from Lecture L8 slides. The Decision Tree must have a different ROOT than the one in the lecture notes. Can't use the General Majority Voting.

2. EVALUATE Information Gain on 2 NODES of your tree. You must show work, not a final number; in fact you can write proper formulas for its computation without evaluating (calculator) the numbers. I want to SEE if you understand the formulas.

Problem 2

1. Write down all the rules determined by your tree in a predicate form.
2. Evaluate Predicate accuracy of your rules with respect of the lecture L8 test data set.

Problem 3

1. Write down your own test data set 6 records that would give 100 % Predicate Accuracy for the lecture set of rules.
2. Write a test data set of 6 records that would give 0% Predicate Accuracy for the lecture set of rules.