

CS 678 Rule Based Learning Homework

You want to train a rule based system on the following training set. Using sequential covering with the Laplacian for scoring rules. Show the first two iterations, each returning a rule. Thus your final rule list will just have two rules in it. If two rules have the same score choose the most general rule. Do the version that adds rules to the end of the list, and deletes all training instances covered by the rule.

$$\text{Laplacian score} = (n_{\text{majority_class_covered}} + 1) / (n_{\text{total_covered}} + \text{number of output classes})$$

Year	GPA	Output
So	Med	N
Fr	Low	P
So	Hi	P
Fr	Hi	P
Fr	Med	P
So	Med	N
Sr	Med	P