Rubric for Assignment 3

September 16, 2020

1. In Step 1,
   A. (1 pt.) You are supposed to implement Decision Tree, Random Forest and MIRCO. You can use built-in packages. You need to submit your Python code in a file, called *step1.py*, to CodeGrade.
   B. (1 pt.) You need to report average performance of all three methods, average number of missed points by MIRCO, and report the average numbers of rules used all three methods.
   C. (1 pt.) Additionally, you need to discuss whether the resulting set of rules with MIRCO or DT is more interpretable.
2. In step 2,
   A. (3 pts.) You need to either find a new heuristic, or improve the existing one, or exploit the structure of the problem.
   B. (3 pts.) You need to implement your idea in Part A and submit the code file, called *step2.py*, to CodeGrade.
   C. (1 pt.) Additionally, you need to present your results and compare your idea with the existing one.
3. In Step 3, you need to find an algorithm that makes MIRCO a classifier. You should write down the pseudo code of your algorithm. If your algorithm does not add/subtract rules, you will get 4 points at most from this step.
4. In Step 4, you need to find two ways to simplify the resulting set of rules obtained with MIRCO to get the full credit. You will get 2 points for each form of simplification.