CIS 508 Individual Assignment #2

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To Do List

Task One: Perform hyper-parameter tuning of the two classifiers by changing at least three different hyper-parameters of each classifier.

Task Two: Use both random and grid search for hyper-parameter tuning. Also use cross-validation.

Task Three: Discuss what hyper-parameter ranges are best for each classifier for these two problems.

Task Four: Compare and evaluate the different classifiers using the test-set and find the best classifier for criterion (e.g. accuracy, precision, recall, F1-score).

Solution

The objective of this homework is to move away from exclusively using the *DecisionTreeClassifier* function within Scikit-learn and try other machine learning functions. This week, we will focus on hyper-parameter tuning using several different sklearn functions, including the: X function, Y function, and Z function.

Task One

Task Two

Task Three

Task Four