

Assignment #8

머신러닝 이론과 실전

Due: November 8, 2021

1. Write your own code for 1-level regression tree. '1-level regression tree' means a tree that splits only the root node for regression.
 - a. Use a data file named 'boston_tr.csv' for the training and 'boston_tst.csv' as the test data.
 - b. Fit a 1-level regression tree on the dependent variable 'medv' with other variables as independent variables.
 - c. Find a splitting rule, then split the current node into two subnodes. (Categorical variables should be considered in this assignment)
 - d. Print out the 1-level tree information (see below).

The output file for classification generated by the program must look like

```
Tree Structure
Node 1: n=343, mean=21.74
Node 2: crim < 0.2, n=112, mean=19.85
Node 3: crim >= 0.2, n=231, mean=23.66
```

```
Prediction Performance (Test)
```

```
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MAE = 0.03
MAPE = 1.3
RMSE = .234
```