

Machine Learning Assignment 1 Report

DATASET 1

WITHOUT PRUNING

Accuracy using Information Gain on validation set : 75.9 %

Accuracy using Variance Gain on validation set : 67.25 %

Accuracy using Information Gain on Test set : 75.85 %

Accuracy using variance Gain on Test set : 68.05 %

WITH PRUNING

L=3,K=8

Accuracy using Information Gain on Test set : 75.85 %

Accuracy using variance Gain on Test set : 68.05 %

L=2,K=22

Accuracy using Information Gain on Test set : 75.85 %

Accuracy using variance Gain on Test set : 68.05 %

L=5,K=6

Accuracy using Information Gain on Test set : 75.85 %

Accuracy using variance Gain on Test set : 68.05 %

L=39,K=7

Accuracy using Information Gain on Test set : 75.85 %

Accuracy using variance Gain on Test set : 68.05 %

L=10,K=24

Accuracy using Information Gain on Test set : 75.85 %

Accuracy using variance Gain on Test set : 68.05 %

L=16,K=38

Accuracy using Information Gain on Test set : 75.85 %

Accuracy using variance Gain on Test set : 68.05 %

L=50,K=4

Accuracy using Information Gain on Test set : 75.85 %

Accuracy using variance Gain on Test set : 68.05 %

L=27,K=49

Accuracy using Information Gain on Test set : 75.85 %

Accuracy using variance Gain on Test set : 68.05 %

L=11,K=11

Accuracy using Information Gain on Test set : 75.85 %

Accuracy using variance Gain on Test set : 68.05 %

L=19,K=24

Accuracy using Information Gain on Test set : 75.85 %

Accuracy using variance Gain on Test set : 68.05 %

DATASET 2

WITHOUT PRUNING

Accuracy using Information Gain on validation set : 77.17 %

Accuracy using Variance Gain on validation set : 65.67 %

Accuracy using Information Gain on Test set : 72.33 %

Accuracy using variance Gain on Test set : 68.0 %

WITH PRUNING

L=11,K=13

Accuracy using Information Gain on Test set : 72.33 %

Accuracy using variance Gain on Test set : 68.0 %

L=19,K=26

Accuracy using Information Gain on Test set : 72.33 %

Accuracy using variance Gain on Test set : 68.0 %

L=26,K=48

Accuracy using Information Gain on Test set : 72.33 %

Accuracy using variance Gain on Test set : 68.0 %

L=49,K=5

Accuracy using Information Gain on Test set : 72.33 %

Accuracy using variance Gain on Test set : 68.0 %

L=14,K=37

Accuracy using Information Gain on Test set : 72.33 %

Accuracy using variance Gain on Test set : 68.0 %

L=8,K=24

Accuracy using Information Gain on Test set : 72.33 %

Accuracy using variance Gain on Test set : 68.0 %

L=42,K=8

Accuracy using Information Gain on Test set : 72.33 %

Accuracy using variance Gain on Test set : 68.0 %

L=4,K=5

Accuracy using Information Gain on Test set : 72.33 %

Accuracy using variance Gain on Test set : 68.0 %

L=2,K=20

Accuracy using Information Gain on Test set : 72.33 %

Accuracy using variance Gain on Test set : 68.0 %

L=3,K=9

Accuracy using Information Gain on Test set : 72.33 %

Accuracy using variance Gain on Test set : 68.0 %