

DECISION TREE

Aim: To implement and design decision tree using weka.

Algorithm:

- Determine root node
- Calculate entropy for classes
- Calculate entropy after split for each attributes.
- Calculate information gain
- Perform split
- Perform further split
- Compute decision tree

Output:

Classifier output

Feature set: 1,2,3,20,21

Time taken to build model: 0.47 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances	710	71	%
Incorrectly Classified Instances	290	29	%
Kappa statistic	0.2033		
Mean absolute error	0.3677		
Root mean squared error	0.4321		
Relative absolute error	87.505 %		
Root relative squared error	94.2815 %		
Total Number of Instances	1000		

=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	0.893	0.717	0.744	0.893	0.812	0.220	0.723	0.654	good
	0.283	0.107	0.531	0.283	0.370	0.220	0.723	0.478	bad
Weighted Avg.	0.710	0.534	0.680	0.710	0.679	0.220	0.723	0.741	

=== Confusion Matrix ===

a	b	classified as	
625	75	a =	good
215	85	b =	bad

Weka GUI Chooser

Program Visualization Tools Help

Weka Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Classifier

Choose REP Tree - M2 - V 0.001 - N3 - S1 - L -1 - I 0.0

Test options

☐ Use training set

☐ Supplied test set Set...

☒ Cross-validation Folds 10

☐ Percentage split % 66

More options...

(Nom) class

Start Stop

Result list (right-click for options)

201823 - trees.RepTree

201823 - trees.RepTree

Status OK

Log x 0

Applications

Explorer

Experimenter

Knowledgeflow

Workbench

Simple CLI

Weka Environment for Knowledge Analysis
Version 3.8.6
(c) 1999 - 2022
The University of Waikato
Hamilton, New Zealand

Type here to search

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