

Date:15/09/22

Course name:-Data warehousing and Data mining for medical applications

Course code:-CSA1654

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EXPERIMENT:23

The screenshot shows the Weka Explorer interface with the Classifier tab selected. The classifier chosen is DecisionTable. The test options are set to Cross-validation with 10 folds. The classifier output displays the following summary:

Time taken to build model: 13.89 seconds

=== Stratified cross-validation ===

=== Summary ===

Metric	Value
Correctly Classified Instances	3432 (74.1733 %)
Incorrectly Classified Instances	1195 (25.8267 %)
Kappa statistic	0.4046
Mean absolute error	0.35
Root mean squared error	0.4218
Relative absolute error	75.6846 %
Root relative squared error	87.7203 %
Total Number of Instances	4627

=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
low	0.879	0.500	0.755	0.879	0.813	0.417	0.778	0.835	low
high	0.500	0.121	0.702	0.500	0.584	0.417	0.778	0.680	high
Weighted Avg.	0.742	0.362	0.736	0.742	0.730	0.417	0.778	0.779	

=== Confusion Matrix ===

	a	b	<-- classified as
2592	356		a = low
839	840		b = high

EXPERIMENT:24

The screenshot shows the Weka Explorer interface with the Filter tab selected. The filter chosen is Normalize. The current relation is german_credit-weka.filters.unsupervised.attribute.Normalize-S1.0-T0.0. The selected attribute is checking_status. The filter output displays the following summary:

Name: checking_status

Missing: 0 (0%)

Distinct: 4

Type: Nominal

Unique: 0 (0%)

No.	Label	Count	Weight
1	<0	274	274
2	0<=X<200	269	269
3	>=200	63	63
4	no checking	394	394

Class: class (Nom)

Visualize All

EXPERIMENT:25

Weka Explorer

PreprocessClassifyClusterAssociateSelect attributesVisualize

Clusterer

ChooseEM -I 100 -N -1 -X 10 -max -1 -ll-cv 1.0E-6 -ll-iter 1.0E-6 -M 1.0E-6 -K 10 -num-slots 1 -S 100

Cluster mode

Use training set

Supplied test setSet...

Percentage split%66

Classes to clusters evaluation(Nom) class

Store clusters for visualization

Ignore attributes

StartStop

Result list (right-click for options)

17:53:34 - MakeDensityBasedClusterer

18:11:04 - EM

Clusterer output

==== Clustering model (full training set) ====

EM

==

Number of clusters selected by cross validation: 16

Number of iterations performed: 5

Attribute	Cluster 0	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6	Cluster 7	Cluster 8	Cluster 9	Cluster 10
	(0.09)	(0.03)	(0.03)	(0.06)	(0.06)	(0.03)	(0.03)	(0.07)	(0.12)	(0.06)	(0.07)
region-centroid-col											
mean	71.5227	87.808	122.0319	124.75	126.4601	118.2615	123.235	107.491	126.3789	115.8083	149.4251
std. dev.	42.8881	61.9287	91.9883	68.2498	72.5099	81.9168	79.1897	69.0148	68.895	66.8399	72.142
region-centroid-row											
mean	84.6219	106.0211	102.9603	128.9615	111.1966	134.4826	208.7378	120.8464	204.8754	85.5932	125.9052
std. dev.	23.8605	22.0862	28.7779	9.3951	46.9799	11.4221	25.1011	16.4719	28.4701	37.743	50.3096
region-pixel-count											
mean	9	9	9	9	9	9	9	9	9	9	9
std. dev.	0	0	0	0	0	0	0	0	0	0	0
short-line-density-5											
mean	0.0363	0.0235	0.0001	0	0.0098	0	0.1157	0.0019	0.0008	0.0207	0.0037

Status

OK

Log

91°F Mostly cloudy

ENG IN 18:11 15-09-2022