

Weka Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Classifier

Choose **NaiveBayes**

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)

11:30:28 - bayes.NaiveBayes

Classifier output

=== Run information ===

Scheme: weka.classifiers.bayes.NaiveBayes
 Relation: breast-cancer
 Instances: 286
 Attributes: 10
 age
 menopause
 tumor-size
 inv-nodes
 node-caps
 deg-malig
 breast
 breast-quad
 irradiat
 Class

Test mode: 10-fold cross-validation

=== Classifier model (full training set) ===

Naive Bayes Classifier

Attribute	Class	
	no-recurrence-events (0.7)	recurrence-events (0.3)
age		
10-19	1.0	1.0
20-29	2.0	1.0
30-39	22.0	14.0

Status OK

Log x0

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Attribute	no-recurrence-events (0.7)	recurrence-events (0.3)
40-49	64.0	28.0
50-59	72.0	26.0
60-69	41.0	18.0
70-79	6.0	2.0
80-89	1.0	1.0
90-99	1.0	1.0
[total]	210.0	94.0
menopause		
lt40	6.0	3.0
ge40	95.0	36.0
premeno	103.0	49.0
[total]	204.0	88.0
tumor-size		
0-4	8.0	2.0
5-9	5.0	1.0
10-14	28.0	2.0
15-19	24.0	8.0
20-24	35.0	17.0
25-29	37.0	19.0
30-34	36.0	26.0
35-39	13.0	8.0
40-44	17.0	7.0
45-49	3.0	2.0
50-54	6.0	4.0
55-59	1.0	1.0
[total]	213.0	97.0

Status OK

Log x0

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[total]	213.0	97.0
inv-nodes		
0-2	168.0	47.0
3-5	20.0	18.0
6-8	8.0	11.0
9-11	5.0	7.0
12-14	2.0	3.0
15-17	4.0	4.0
18-20	1.0	1.0
21-23	1.0	1.0
24-26	1.0	2.0
27-29	1.0	1.0
30-32	1.0	1.0
33-35	1.0	1.0
36-39	1.0	1.0
[total]	214.0	98.0
node-caps		
yes	26.0	32.0
no	172.0	52.0
[total]	198.0	84.0
deg-malig		
1	60.0	13.0
2	103.0	29.0
3	41.0	46.0
[total]	204.0	88.0
breast		

Status

OK

Log x0

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Classifier output

[total]	204.0	88.0
breast		
left	104.0	50.0
right	99.0	37.0
[total]	203.0	87.0
breast-quad		
left_up	72.0	27.0
left_low	76.0	36.0
right_up	21.0	14.0
right_low	19.0	7.0
central	18.0	5.0
[total]	206.0	89.0
irradiat		
yes	38.0	32.0
no	165.0	55.0
[total]	203.0	87.0

Time taken to build model: 0.01 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances	205	71.6783 %
Incorrectly Classified Instances	81	28.3217 %
Kappa statistic	0.3852	

Status

OK

Log x0

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Folds

10

%

66

More options...

(Nom) Class

Start

Stop

Result list (right-click for options)

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Classifier output

Time taken to build model: 0.01 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances	205	71.6783 %
Incorrectly Classified Instances	81	28.3217 %
Kappa statistic	0.2857	
Mean absolute error	0.3272	
Root mean squared error	0.4534	
Relative absolute error	78.2086 %	
Root relative squared error	99.1872 %	
Total Number of Instances	286	

=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	0.836	0.565	0.778	0.836	0.806	0.288	0.701	0.837	no-recurrence-events
	0.435	0.164	0.529	0.435	0.477	0.288	0.701	0.514	recurrence-events
Weighted Avg.	0.717	0.446	0.704	0.717	0.708	0.288	0.701	0.741	

=== Confusion Matrix ===

a b <-- classified as

168	33	a = no-recurrence-events
48	37	b = recurrence-events

Status

OK

Log

x0