

Preprocess

Classify

Cluster

Associate

Select attributes

Visualize

Classifier

Choose

J48 -C 0.25 -M 2

Test options

Use training set

Supplied test set

Cross-validation

Percentage split

Folds

%

10

66

More options...

(Nom) class

Start

Stop

Result list (right-click for options)

21.23.10 - trees.J48

Classifier output

Time taken to build model: 0.31 seconds

=== Stratified cross-validation ===

=== Summary ===

|                                  |          |      |   |
|----------------------------------|----------|------|---|
| Correctly Classified Instances   | 705      | 70.5 | % |
| Incorrectly Classified Instances | 295      | 29.5 | % |
| Kappa statistic                  | 0.2467   |      |   |
| Mean absolute error              | 0.3467   |      |   |
| Root mean squared error          | 0.4796   |      |   |
| Relative absolute error          | 82.5233  | %    |   |
| Root relative squared error      | 104.6565 | %    |   |
| Total Number of Instances        | 1000     |      |   |

=== Detailed Accuracy By Class ===

|               | TP Rate | FP Rate | Precision | Recall | F-Measure | MCC   | ROC Area | PRC Area | Class |
|---------------|---------|---------|-----------|--------|-----------|-------|----------|----------|-------|
|               | 0.840   | 0.610   | 0.763     | 0.840  | 0.799     | 0.251 | 0.639    | 0.746    | good  |
|               | 0.390   | 0.160   | 0.511     | 0.390  | 0.442     | 0.251 | 0.639    | 0.449    | bad   |
| Weighted Avg. | 0.705   | 0.475   | 0.687     | 0.705  | 0.692     | 0.251 | 0.639    | 0.657    |       |

=== Confusion Matrix ===

a b <-- classified as

588 112 | a = good

183 117 | b = bad

Status

OK

Log

x 0

Preprocess

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Select attributes

Visualize

Open file...

Open URL...

Open DB...

Generate...

Undo

Edit...

Save...

Filter

Choose

None

Apply

Stop

Current relation

Relation: german\_credit

Instances: 1000

Attributes: 21

Sum of weights: 1000

Attributes

All

None

Invert

Pattern

| No. | Name  |
|-----|---|
| 1   | <input checked="" type="checkbox"/> checking_status |
| 2   | <input type="checkbox"/> duration                   |
| 3   | <input type="checkbox"/> credit_history             |
| 4   | <input type="checkbox"/> purpose                    |
| 5   | <input type="checkbox"/> credit_amount              |
| 6   | <input type="checkbox"/> savings_status             |
| 7   | <input type="checkbox"/> employment                 |
| 8   | <input type="checkbox"/> installment_commitment     |
| 9   | <input type="checkbox"/> personal_status            |
| 10  | <input type="checkbox"/> other_parties              |
| 11  | <input type="checkbox"/> residence_since            |
| 12  | <input type="checkbox"/> property_magnitude         |
| 13  | <input type="checkbox"/> age                        |
| 14  | <input type="checkbox"/> other_payment_plans        |
| 15  | <input type="checkbox"/> housing                    |
| 16  | <input type="checkbox"/> existing_credits           |

Remove

Selected attribute

Name: checking\_status

Missing: 0 (0%)

Distinct: 4

Type: Nominal

Unique: 0 (0%)

| No. | Label       | Count | Weight |
|-----|-------------|-------|--------|
| 1   | <0          | 274   | 274.0  |
| 2   | 0<=X<200    | 269   | 269.0  |
| 3   | >=200       | 63    | 63.0   |
| 4   | no checking | 394   | 394.0  |

Class: class (Nom)

Visualize All

| Label       | Count | Weight |
|-------------|-------|--------|
| <0          | 274   | 274.0  |
| 0<=X<200    | 269   | 269.0  |
| >=200       | 63    | 63.0   |
| no checking | 394   | 394.0  |

Status

OK

Log

x 0

Preprocess

Classify

Cluster

Associate

Select attributes

Visualize

Open file...

Open URL...

Open DB...

Generate...

Undo

Edit...

Save...

Filter

ChooseNone

Apply

Stop

Current relation

Relation: german\_credit

Instances: 1000

Attributes: 21

Sum of weights: 1000

Attributes

AllNoneInvertPattern

| No. | Name                   |
|-----|------------------------|
| 6   | savings_status         |
| 7   | employment             |
| 8   | installment_commitment |
| 9   | personal_status        |
| 10  | other_parties          |
| 11  | residence_since        |
| 12  | property_magnitude     |
| 13  | age                    |
| 14  | other_payment_plans    |
| 15  | housing                |
| 16  | existing_credits       |
| 17  | job                    |
| 18  | num_dependents         |
| 19  | own_telephone          |
| 20  | foreign_worker         |
| 21  | class                  |

Remove

Selected attribute

Name: class

Missing: 0 (0%)

Distinct: 2

Type: Nominal

Unique: 0 (0%)

| No. | Label | Count | Weight |
|-----|-------|-------|--------|
| 1   | good  | 700   | 700.0  |
| 2   | bad   | 300   | 300.0  |

Class: class (Nom)

Visualize All

| Label | Count |
|-------|-------|
| good  | 700   |
| bad   | 300   |

Status

OK

Log

x 0

Preprocess

Classify

Cluster

Associate

Select attributes

Visualize

Classifier

ChooseJ48 - C 0.25 - M 2

Test options

Use training set

Supplied test set

Cross-validation

Percentage split

Folds: 10

%: 66

More options...

(Nom) class

Start

Stop

Result list (right-click for options)

21:23:10 - trees.J48

22:00:11 - trees.J48

Classifier output

==== Evaluation on training set ====

Time taken to test model on training data: 0.05 seconds

==== Summary ====

|                                  |           |        |
|----------------------------------|-----------|--------|
| Correctly Classified Instances   | 855       | 85.5 % |
| Incorrectly Classified Instances | 145       | 14.5 % |
| Kappa statistic                  | 0.6251    |        |
| Mean absolute error              | 0.2312    |        |
| Root mean squared error          | 0.34      |        |
| Relative absolute error          | 55.0377 % |        |
| Root relative squared error      | 74.2015 % |        |
| Total Number of Instances        | 1000      |        |

==== Detailed Accuracy By Class ====

|               | TP Rate | FP Rate | Precision | Recall | F-Measure | MCC   | ROC Area | PRC Area | Class |
|---------------|---------|---------|-----------|--------|-----------|-------|----------|----------|-------|
| 0.956         | 0.380   | 0.854   | 0.956     | 0.902  | 0.640     | 0.857 | 0.905    | good     |       |
| 0.620         | 0.044   | 0.857   | 0.620     | 0.720  | 0.640     | 0.857 | 0.783    | bad      |       |
| Weighted Avg. | 0.855   | 0.279   | 0.855     | 0.855  | 0.847     | 0.640 | 0.857    | 0.869    |       |

==== Confusion Matrix ====

a b <-- classified as

669 31 | a = good

114 186 | b = bad

Status

OK

Log

x 0