

DWDM

WEKA – PROGRAM 21

Weka Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Filter: Choose **None** Apply Stop

Current relation
Relation: iris
Instances: 150
Attributes: 5
Sum of weights: 150

Attributes

All None Invert Pattern

No.	Name
1	<input checked="" type="checkbox"/> sepalength
2	<input type="checkbox"/> sepalwidth
3	<input type="checkbox"/> petallength
4	<input type="checkbox"/> petalwidth
5	<input type="checkbox"/> class

Remove

Selected attribute
Name: sepalength
Missing: 0 (0%)
Distinct: 35
Type: Numeric
Unique: 9 (6%)

Statistic	Value
Minimum	4.3
Maximum	7.9
Mean	5.843
StdDev	0.828

Class: class (Nom) Visualize All

Status: OK Log x 0

Weka Explorer

Preprocess Classify **Cluster** Associate Select attributes Visualize

Clusterer
Choose **EM** -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 set Set...
☐ Percentage split % 66
☐ Classes to clusters evaluation (Nom) class
☒ Store clusters for visualization

Ignore attributes

Start Stop

Result list (right-click for options)
17:04:08 - EM

Clusterer output

```

=== Run information ===

Scheme:      weka.clusterers.EM -I 100 -N -1 -X 10 -max -1 -ll-cv 1.0E-6 -ll-iter 1.0E-6
Relation:    iris
Instances:   150
Attributes:  5
  sepalength
  sepalwidth
  petallength
  petalwidth
  class
Test mode:   evaluate on training data

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

EM
==

Number of clusters selected by cross validation: 4
Number of iterations performed: 16

      Cluster
Attribute      0      1      2      3
                (0.32) (0.33) (0.2) (0.14)
=====
sepalength
  mean          5.897  5.006  6.9426  6.1304
  std. dev.     0.5279  0.3489  0.498  0.2943

sepalwidth
  
```

Status
OK

Log x0

Weka Explorer

Preprocess Classify **Cluster** Associate Select attributes Visualize

Clusterer
Choose **EM** -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 set Set...
☐ Percentage split % 66
☐ Classes to clusters evaluation (Nom) class
☒ Store clusters for visualization

Ignore attributes

Start Stop

Result list (right-click for options)
17:04:08 - EM

Clusterer output

```

sepalwidth
  mean          2.7519  3.418  3.1103  2.8088
  std. dev.     0.3103  0.3772  0.2952  0.2361

petallength
  mean          4.2267  1.464  5.8559  5.0993
  std. dev.     0.445  0.1718  0.4626  0.2462

petalwidth
  mean          1.3134  0.244  2.1495  1.8254
  std. dev.     0.1864  0.1061  0.232  0.2152

class
  Iris-setosa      1      51      1      1
  Iris-versicolor 48.1125  1  1.0182  3.8693
  Iris-virginica   2.0983  1 31.0375 19.8641
  [total]         51.2108 53 33.0557 24.7335

Time taken to build model (full training data) : 0.22 seconds

=== Model and evaluation on training set ===

Clustered Instances

0      48 ( 32%)
1      50 ( 33%)
2      29 ( 19%)
3      23 ( 15%)

Log likelihood: -2.03504
  
```

Status
OK

Log x0

