WEKA Instructions

Where to download?

Download the self-extracting executable from http://www.cs.waikato.ac.nz/ml/weka/

How to install?

Double click on the exe file and just follow the instructions.

Start up the application

Go to Start->All Programs -> WEKA -> weka3-4

This should appear:



Click on Explorer



Open a training dataset by clicking on the Open File button in the 'Preprocess' tab.

👙 Weka Explorer	
Preprocess Classify Cluster Associate Select attributes Visualize	
Open file Open URL Open	n DB Undo Save
Choose None	Apply
Current relation Relation: iris Instances: 150 Attributes: 5	Selected attribute Name: sepallength Type: Numeric Missing: 0 (0%) Distinct: 35 Unique: 9 (6%)
Attributes	Statistic Value
All None Invert	Maximum 7.9 Maximum 7.9 Mean 5.843
No. Name	StdDev 0.828
1 sepallength 2 sepalwidth 3 petallength	
4 petalwidth 5 class	Class: class (Nom) Visualize All
	30 26 25 16
Remove	
Chatur	4.3 6.1 7.9
OK	Log 🛷 ×0

We provide you with 3 different training sets in arff format (e.g. train_caldor.arff).

To classify the data, click on the Classify tab. It comes up with Cross-validation selected. Change that to Supplied test set. Click on Set, and it will ask you to choose the test data set (e.g. test_caldor.arff).

👙 Weka Explorer	. 🗆 🖂
Preprocess Classify Cluster Associate Select attributes Visualize	
Classifier	
Choose RBFNetwork -B 2 -5 1 -R 1.0E-8 -M -1	
]
O use training set	
O supplied test set Set	
Cross-validation Folds 10	
O Percentage split % 66	
More options	
(Non) play	
Start Stop	
Result list (right-click for options)	
Status	
OK Log A	×U

Choose a classifier.

Click on choose:

- for decision tree click on trees-> REPtrees
- for neural net click on functions-> multilayer perceptron

To change the parameters of the classifier right click on the classifier name (not required for assignment).

👙 Weka Explorer	
Preprocess Classify Cluster Associate Select attributes Visualize	
Classifier	
Choose MultilayerPerceptron -L 0.3 -M 0.2 -N 500 -V 0 -5 0 -E 20 -H a	
Classifier output	
⊙ Use training set	
O Supplied test set Set	
Cross-validation Folds 10	
O Percentage split % 66	
More options	
(Nom) play	
Start	
Recult list (right-click for optione)	
OK Log ×0	

To start the testing, click Start. Note that the multi-layered perceptron trains very slowly. The bird in the lower right shows you that it is still executing. Eventually the results appear. The decision tree I tried (RepTree) was much faster.

🌢 Weka Explorer									
Preprocess Classify Cluster Associate S	elect attributes	/isualize							
Classifier									
Choose MultilayerPerceptron -L	1.3 -M 0.2 -N 500 -	VU-5U-E	20 -H a						
Test options	Classifier output								
O Use training set	Kappa stati	Kanna statistic			0.96		~		
Supplied test set	Mean absolu	te erro	c		0.0327				
O Supplied test set	Root mean s	quared	error		0.1291				
Cross-validation Folds 10	Relative ab	solute	error		7.3555 %				
O Percentage split % 66	Root relati	ve squa	red error		27.3796 %				
More options	Total Numbe	r of In	stances		150				
	Dotoilo	d leave	Pre Cloga						
(User) dese	Decarie	d Accur	асу бу стазз						
(Nom) class	TP Rate F	P Rate	Precision	Recall	F-Measure	Class			
Start Stop	1	0	1	1	1	Iris-setosa			
	0.96	0.02	0.96	0.96	0.96	Iris-versicolor			
Result list (right-click for options)	0.96	0.02	0.96	0.96	0.96	Iris-virginica			
13:27:35 - functions.MultilayerPerceptron									
13:29:00 - functions.MultilayerPerceptron	=== Confusi	on Matr	ix ===						
13:30:49 - functions.MultilaverPerceptron									
13:30:54 - functions.MultilayerPerceptron	ron a b c < classified as								
13:31:32 - functions.MultilayerPerceptron	3:31:32 - functions. MultilayerPerceptron								
	$0.2.48 \downarrow c = Tris-virginica$								
			-						
							~		
	<						>		
Status									
ок						Log	- A.O.		

The output gives you a lot of statistics. Report on the correct and incorrect classification rates and the confusion matrix.