# **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. You don't need to select a mirror. If one download site doesn't work, just choose another and start over.

## Start up the application

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

This should appear:



### Click on Explorer

🍰 Weka Explorer	
Preprocess Classify Cluster Associate Select attributes Visualize	
Open file Open URL Ope	n DB Undo Save
Filter	
Choose None	Apply
Current relation	Selected attribute
Relation: None Instances: None Attributes: None	Name: None Type: None Missing: None Distinct: None Unique: None
Attributes	
All None Invert	
	Visualize All
Remove	
Welcome to the Weka Explorer	Log ×0

Open a training dataset by clicking on the Open File button in the 'Preprocess' tab. We provide you with 3 different training sets in arff format.

🔄 Weka Explorer	
Preprocess Classify Cluster Associate Select attributes Visualize	
Open file Open URL Open	n DB Undo Save
Tike	
Choose None	Apply
Current relation	Selected attribute
Relation: iris	Name: sepallength Type: Numeric
Instances: 150 Attributes: 5	Missing: 0 (0%) Distinct: 35 Unique: 9 (6%)
Attributes	Statistic Value
	Minimum 4.3
All None Invert	Maximum 7.9
	Mean 5.843
No. Name	StdDev 0.828
1 sepallength	
2 sepaiwidth	
4 Detalwidth	
5 class	Class: class (Nom) Visualize All
	34
	30 28
	25
	16
	10
	7
Remove	
	4.3 6.1 79
Status	
ок	Log 🔬 × 0

To classify the data, click on the Classify tab.

🁙 Weka Explorer	
Preprocess Classify Cluster Associate Select attributes V	lisualize
Classifier	
Choose RBFNetwork -B 2 -S 1 -R 1.0E-8 -M -1	
Test options Classif   Use training set Supplied test set   Supplied test set Set   O Cross-validation Folds   Percentage split %   More options	ier output
(Nom) play	
Start Stop	
Result list (right-click for options)	
Status OK	Log ×0

Choose a classifier.

Click on choose:

- for decision tree click on trees-> random trees
- 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	
Test options	
Use training set	
Supplied test set Set	
Cross-validation Folds 10	
Percentage split % 66	
More options	
(Nom) play	
Start Stop	
Result list (right-click for options)	
Status	
ок	×O

For testing we provide you with three corresponding test sets in arff format. 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	Visualize						
Classifier								
Choose MultilayerPerceptron -2.0		-V 0 -5 0 -E	20-11 a					
Test options	Classifier output							
O Use training set	Kappa stat:	stic			0.96		^	
O Supplied test set	Mean absolu	ate erro	c		0.0327			
	Root mean a	squared	error		0.1291			
Cross-validation Folds 10	Relative al	solute	error		7.3555 %			
Percentage split % 66	Root relat:	ive squa	red error		27.3796 %			
More options	Total Numbe	er or in	stances		150			
· · · · · · · · · · · · · · · · · · ·	=== Details	d Accur	acy By Class					
(Nom) class	Decuri	.u noour	101 01 01000					
(NoIII) class	TP Rate 1	'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 13:30:27 - functions MultilayerPerceptron	=== Confusion Matrix ===							
13:30:49 - functions.MultilaverPerceptron		<	anified on					
13:30:54 - functions.MultilayerPerceptron	a b c < classified as							
13:31:32 - functions.MultilayerPerceptron	0.48 2 l h = Tris-versicolor							
	0 2 48   c = Iris-virginica							
			-					
							<b>v</b>	
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( Tabua								
Status								
OK						Log	- CO	

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