Log/ Performance Output for Multilayer Perceptron

1)

=== Run information ===

Scheme: weka.classifiers.meta.FilteredClassifier -F "weka.filters.supervised.instance.Resample -B 1.0 -S 1 -Z 100.0" -S 1 -W weka.classifiers.functions.MultilayerPerceptron -- -L 0.3 -M 0.2 -N 500 -V 0 -S 0 -E 20 -H a

Relation: compiled-weka.filters.supervised.instance.**ClassBalancer**-num-intervals10

Instances: 151844

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 128469.7397 84.6064 %

Incorrectly Classified Instances 23374.2603 15.3936 %

Kappa statistic 0.6921

Mean absolute error 0.2059

Root mean squared error 0.3383

Relative absolute error 41.1732 %

Root relative squared error 67.6621 %

Total Number of Instances 151844

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0.855 0.163 0.840 0.855 0.847 0.692 0.913 0.901 P

0.837 0.145 0.852 0.837 0.845 0.692 0.913 0.904 E

Weighted Avg. 0.846 0.154 0.846 0.846 0.846 0.692 0.913 0.902

=== Confusion Matrix ===

a b <-- classified as

64909.34 11012.66 | a = P

12361.6 63560.4 | b = E

2)

=== Run information ===

Scheme: weka.classifiers.meta.FilteredClassifier -F "weka.filters.supervised.instance.Resample -B 1.0 -S 1 -Z 100.0" -S 1 -W weka.classifiers.functions.MultilayerPerceptron -- -L 0.3 -M 0.2 -N 500 -V 0 -S 0 -E 20 -H a

Relation: compiled-weka.filters.supervised.instance.**Resample**-B1.0-S1-Z168.627

Instances: 256048

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 217116 84.795 %

Incorrectly Classified Instances 38932 15.205 %

Kappa statistic 0.6959

Mean absolute error 0.2073

Root mean squared error 0.3373

Relative absolute error 41.4571 %

Root relative squared error 67.4667 %

Total Number of Instances 256048

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0.884 0.188 0.825 0.884 0.853 0.698 0.916 0.904 P

0.812 0.116 0.875 0.812 0.842 0.698 0.916 0.910 E

Weighted Avg. 0.848 0.152 0.850 0.848 0.848 0.698 0.916 0.907

=== Confusion Matrix ===

a b <-- classified as

113158 14866 | a = P

24066 103958 | b = E

3)

=== Run information ===

Scheme: weka.classifiers.meta.FilteredClassifier -F "weka.filters.supervised.instance.Resample -B 1.0 -S 1 -Z 100.0" -S 1 -W weka.classifiers.functions.MultilayerPerceptron -- -L 0.3 -M 0.2 -N 500 -V 0 -S 0 -E 20 -H a

Relation: compiled-weka.filters.supervised.instance.**SpreadSubsample**-M1.0-X0.0-S1

Instances: 47638

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 39961 83.8847 %

Incorrectly Classified Instances 7677 16.1153 %

Kappa statistic 0.6777

Mean absolute error 0.2163

Root mean squared error 0.3443

Relative absolute error 43.2699 %

Root relative squared error 68.8654 %

Total Number of Instances 47638

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0.842 0.164 0.837 0.842 0.839 0.678 0.908 0.896 P

0.836 0.158 0.841 0.836 0.838 0.678 0.908 0.900 E

Weighted Avg. 0.839 0.161 0.839 0.839 0.839 0.678 0.908 0.898

=== Confusion Matrix ===

a b <-- classified as

20055 3764 | a = P

3913 19906 | b = E