=== Run information ===

Scheme: weka.classifiers.functions.LibSVM -S 0 -K 2 -D 3 -G 0.0 -R 0.0 -N 0.5 -M 40.0 -C 1.0 -E 0.001 -P 0.1 -model "C:\\Program Files\\Weka-3-8-5" -seed 1

Relation: KDDTrain20P\_05A.arff-weka.filters.unsupervised.attribute.Remove-R42-weka.filters.unsupervised.attribute.RemoveUseless-M99.0-weka.filters.unsupervised.attribute.SortLabels-R2-SNON-CASE-weka.filters.unsupervised.attribute.OrdinalToNumeric-R2-4-weka.filters.unsupervised.attribute.MathExpression-E(A-MEAN)/SD-weka.filters.unsupervised.attribute.Remove-V-R5,3,28,4,6,27,33,21,31,32,36,23,37,24,12,35,34,30,22,29,38,2,39,25,1,26,10,20,8,last

Instances: 25192

Attributes: 30

src\_bytes

service

diff\_srv\_rate

flag

dst\_bytes

same\_srv\_rate

dst\_host\_diff\_srv\_rate

count

dst\_host\_srv\_count

dst\_host\_same\_srv\_rate

dst\_host\_serror\_rate

serror\_rate

dst\_host\_srv\_serror\_rate

srv\_serror\_rate

logged\_in

dst\_host\_srv\_diff\_host\_rate

dst\_host\_same\_src\_port\_rate

dst\_host\_count

srv\_count

srv\_diff\_host\_rate

dst\_host\_rerror\_rate

protocol\_type

dst\_host\_srv\_rerror\_rate

rerror\_rate

duration

srv\_rerror\_rate

hot

is\_guest\_login

wrong\_fragment

class

Test mode: 10-fold cross-validation

=== Classifier model (full training set) ===

LibSVM wrapper, original code by Yasser EL-Manzalawy (= WLSVM)

Time taken to build model: 14.43 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 24935 98.9798 %

Incorrectly Classified Instances 257 1.0202 %

Kappa statistic 0.9822

Mean absolute error 0.0041

Root mean squared error 0.0639

Relative absolute error 1.7824 %

Root relative squared error 18.8814 %

Total Number of Instances 25192

=== Detailed Accuracy By Class ===

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

0.992 0.011 0.990 0.992 0.991 0.980 0.990 0.986 normal

0.998 0.002 0.997 0.998 0.997 0.996 0.998 0.996 dos

0.813 0.001 0.854 0.813 0.833 0.832 0.906 0.696 r2l

0.969 0.003 0.970 0.969 0.969 0.966 0.983 0.943 probe

0.000 0.000 ? 0.000 ? ? 0.500 0.000 u2r

Weighted Avg. 0.990 0.007 ? 0.990 ? ? 0.991 0.983

=== Confusion Matrix ===

a b c d e <-- classified as

13337 16 28 68 0 | a = normal

23 9211 0 0 0 | b = dos

34 5 170 0 0 | c = r2l

70 2 0 2217 0 | d = probe

8 2 1 0 0 | e = u2r