=== 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 "D:\\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-Elog(1+A)-Rlast-weka.filters.unsupervised.attribute.Remove-V-R5,3,28,4,6,27,33,21,31,32,36,23,37,24,12,35,34,30,22,29,38,2,39,25,1,26,10,20,8,13,16,14,17,19,11,15,last

Instances: 25192

Attributes: 37

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

num\_compromised

num\_root

root\_shell

num\_file\_creations

num\_access\_files

num\_failed\_logins

su\_attempted

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: 3.8 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 24996 99.222 %

Incorrectly Classified Instances 196 0.778 %

Kappa statistic 0.9864

Mean absolute error 0.0031

Root mean squared error 0.0558

Relative absolute error 1.3593 %

Root relative squared error 16.489 %

Total Number of Instances 25192

=== Detailed Accuracy By Class ===

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

0.996 0.011 0.990 0.996 0.993 0.985 0.992 0.988 normal

0.999 0.000 0.999 0.999 0.999 0.999 0.999 0.999 dos

0.861 0.001 0.909 0.861 0.885 0.884 0.930 0.784 r2l

0.960 0.002 0.983 0.960 0.971 0.969 0.979 0.948 probe

0.000 0.000 ? 0.000 ? ? 0.500 0.000 u2r

Weighted Avg. 0.992 0.006 ? 0.992 ? ? 0.993 0.986

=== Confusion Matrix ===

a b c d e <-- classified as

13394 1 18 36 0 | a = normal

9 9225 0 0 0 | b = dos

27 2 180 0 0 | c = r2l

88 4 0 2197 0 | d = probe

10 0 0 1 0 | e = u2r