=== 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,last

Instances: 25192

Attributes: 29

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

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: 13.87 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 24906 98.8647 %

Incorrectly Classified Instances 286 1.1353 %

Kappa statistic 0.9801

Mean absolute error 0.0045

Root mean squared error 0.0674

Relative absolute error 1.9835 %

Root relative squared error 19.9182 %

Total Number of Instances 25192

=== Detailed Accuracy By Class ===

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

0.991 0.012 0.990 0.991 0.990 0.979 0.990 0.986 normal

0.996 0.003 0.995 0.996 0.995 0.992 0.996 0.992 dos

0.809 0.001 0.858 0.809 0.833 0.832 0.904 0.695 r2l

0.967 0.003 0.969 0.967 0.968 0.965 0.982 0.940 probe

0.000 0.000 ? 0.000 ? ? 0.500 0.000 u2r

Weighted Avg. 0.989 0.008 ? 0.989 ? ? 0.990 0.981

=== Confusion Matrix ===

a b c d e <-- classified as

13327 28 27 67 0 | a = normal

34 9196 0 4 0 | b = dos

35 5 169 0 0 | c = r2l

60 15 0 2214 0 | d = probe

8 2 1 0 0 | e = u2r