=== 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,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: 4.17 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 24988 99.1902 %

Incorrectly Classified Instances 204 0.8098 %

Kappa statistic 0.9858

Mean absolute error 0.0032

Root mean squared error 0.0569

Relative absolute error 1.4148 %

Root relative squared error 16.8222 %

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 0.012 0.989 0.996 0.993 0.984 0.992 0.987 normal

0.998 0.001 0.999 0.998 0.998 0.998 0.999 0.998 dos

0.852 0.001 0.922 0.852 0.886 0.885 0.926 0.787 r2l

0.959 0.001 0.986 0.959 0.972 0.970 0.979 0.949 probe

0.000 0.000 ? 0.000 ? ? 0.500 0.000 u2r

Weighted Avg. 0.992 0.007 ? 0.992 ? ? 0.992 0.986

=== Confusion Matrix ===

a b c d e <-- classified as

13398 5 15 31 0 | a = normal

18 9216 0 0 0 | b = dos

31 0 178 0 0 | c = r2l

87 6 0 2196 0 | d = probe

10 0 0 1 0 | e = u2r