J48 Nominal

=== Run information ===

Scheme: weka.classifiers.trees.J48 -C 0.25 -M 2

Relation: updateMakeAdemHappyDataset-weka.filters.unsupervised.attribute.NumericToNominal-Rfirst-last

Instances: 14996

Attributes: 38

is\_attack

P101

P203

P205

P301

P401

P601

MV301

MV302

MV304

UV401

MV101

MV201

MV303

FIT101

LIT101

AIT202

AIT203

FIT201

DPIT301

FIT301

LIT301

AIT402

FIT401

LIT401

AIT501

AIT502

AIT503

AIT504

FIT501

FIT502

FIT503

FIT504

PIT501

PIT502

PIT503

FIT601

AIT201

Test mode: 10-fold cross-validation

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

J48 pruned tree

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LIT401 = GT787.028992

| AIT402 = LT6.677774905

| | FIT301 = LT1.72693199

| | | LIT101 = GT545.1423

| | | | FIT101 = LT4.385068655

| | | | | P601 = 1

| | | | | | MV304 = 0: 0 (16.0)

| | | | | | MV304 = 1

| | | | | | | PIT503 = LT114.481865

| | | | | | | | AIT201 = LT128.5087125

| | | | | | | | | AIT202 = GT8.9337995

| | | | | | | | | | MV302 = 0: 0 (6.0)

| | | | | | | | | | MV302 = 1

| | | | | | | | | | | FIT201 = GT2.316278455

| | | | | | | | | | | | LIT301 = LT1010.598265

| | | | | | | | | | | | | FIT504 = LT0.211734929

| | | | | | | | | | | | | | FIT502 = GT0.3526962995

| | | | | | | | | | | | | | | FIT401 = GT0.79857865

| | | | | | | | | | | | | | | | FIT503 = LT0.6097366185: 0 (108.0/47.0)

| | | | | | | | | | | | | | | | FIT503 = GT0.6097366185

| | | | | | | | | | | | | | | | | PIT502 = GT2.8593855: 0 (35.0/5.0)

| | | | | | | | | | | | | | | | | PIT502 = LT2.8593855: 1 (3.0)

| | | | | | | | | | | | | | | FIT401 = LT0.79857865

| | | | | | | | | | | | | | | | FIT503 = LT0.6097366185: 0 (5.0/2.0)

| | | | | | | | | | | | | | | | FIT503 = GT0.6097366185: 1 (6.0)

| | | | | | | | | | | | | | FIT502 = LT0.3526962995: 0 (22.0)

| | | | | | | | | | | | | FIT504 = GT0.211734929: 1 (5.0)

| | | | | | | | | | | | LIT301 = GT1010.598265: 0 (79.0/2.0)

| | | | | | | | | | | FIT201 = LT2.316278455

| | | | | | | | | | | | AIT503 = GT1016.24585

| | | | | | | | | | | | | LIT301 = LT1010.598265

| | | | | | | | | | | | | | FIT504 = LT0.211734929

| | | | | | | | | | | | | | | P203 = 1

| | | | | | | | | | | | | | | | MV201 = 0

| | | | | | | | | | | | | | | | | FIT503 = LT0.6097366185: 1 (13.0/5.0)

| | | | | | | | | | | | | | | | | FIT503 = GT0.6097366185: 0 (2.0)

| | | | | | | | | | | | | | | | MV201 = 1

| | | | | | | | | | | | | | | | | FIT503 = LT0.6097366185: 0 (129.0/60.0)

| | | | | | | | | | | | | | | | | FIT503 = GT0.6097366185: 1 (18.0/7.0)

| | | | | | | | | | | | | | | | MV201 = 2: 0 (19.0)

| | | | | | | | | | | | | | | P203 = 2: 1 (77.0/13.0)

| | | | | | | | | | | | | | FIT504 = GT0.211734929: 1 (21.0)

| | | | | | | | | | | | | LIT301 = GT1010.598265

| | | | | | | | | | | | | | FIT501 = GT0.801781585: 1 (240.0/32.0)

| | | | | | | | | | | | | | FIT501 = LT0.801781585: 0 (7.0)

| | | | | | | | | | | | AIT503 = LT1016.24585

| | | | | | | | | | | | | P101 = 1: 1 (27.0)

| | | | | | | | | | | | | P101 = 2: 0 (12.0)

| | | | | | | | | | MV302 = 2

| | | | | | | | | | | P301 = 1: 0 (410.0)

| | | | | | | | | | | P301 = 2

| | | | | | | | | | | | FIT502 = GT0.3526962995

| | | | | | | | | | | | | DPIT301 = LT12.54401685

| | | | | | | | | | | | | | AIT504 = GT24.82055855: 0 (31.0/6.0)

| | | | | | | | | | | | | | AIT504 = LT24.82055855: 1 (155.0/47.0)

| | | | | | | | | | | | | DPIT301 = GT12.54401685: 0 (12.0)

| | | | | | | | | | | | FIT502 = LT0.3526962995: 0 (37.0)

| | | | | | | | | AIT202 = LT8.9337995

| | | | | | | | | | P301 = 1: 1 (234.0)

| | | | | | | | | | P301 = 2

| | | | | | | | | | | FIT502 = GT0.3526962995: 1 (125.0/25.0)

| | | | | | | | | | | FIT502 = LT0.3526962995: 0 (39.0/9.0)

| | | | | | | | AIT201 = GT128.5087125

| | | | | | | | | AIT203 = GT235.8625945

| | | | | | | | | | FIT503 = LT0.6097366185

| | | | | | | | | | | AIT501 = GT7.74131627

| | | | | | | | | | | | PIT502 = GT2.8593855: 1 (3.0)

| | | | | | | | | | | | PIT502 = LT2.8593855

| | | | | | | | | | | | | FIT401 = GT0.79857865

| | | | | | | | | | | | | | AIT503 = GT1016.24585

| | | | | | | | | | | | | | | FIT504 = LT0.211734929: 0 (391.0/88.0)

| | | | | | | | | | | | | | | FIT504 = GT0.211734929

| | | | | | | | | | | | | | | | DPIT301 = LT12.54401685: 1 (12.0/2.0)

| | | | | | | | | | | | | | | | DPIT301 = GT12.54401685: 0 (2.0)

| | | | | | | | | | | | | | AIT503 = LT1016.24585: 0 (173.0/12.0)

| | | | | | | | | | | | | FIT401 = LT0.79857865

| | | | | | | | | | | | | | AIT503 = GT1016.24585: 1 (14.0)

| | | | | | | | | | | | | | AIT503 = LT1016.24585

| | | | | | | | | | | | | | | FIT501 = GT0.801781585: 1 (6.0/2.0)

| | | | | | | | | | | | | | | FIT501 = LT0.801781585: 0 (5.0)

| | | | | | | | | | | AIT501 = LT7.74131627

| | | | | | | | | | | | AIT503 = GT1016.24585: 1 (25.0)

| | | | | | | | | | | | AIT503 = LT1016.24585: 0 (5.0)

| | | | | | | | | | FIT503 = GT0.6097366185

| | | | | | | | | | | PIT502 = GT2.8593855: 0 (6.0)

| | | | | | | | | | | PIT502 = LT2.8593855

| | | | | | | | | | | | AIT503 = GT1016.24585: 1 (111.0/18.0)

| | | | | | | | | | | | AIT503 = LT1016.24585

| | | | | | | | | | | | | LIT301 = LT1010.598265

| | | | | | | | | | | | | | AIT502 = LT68.25173225

| | | | | | | | | | | | | | | FIT401 = GT0.79857865

| | | | | | | | | | | | | | | | AIT504 = GT24.82055855: 0 (27.0/5.0)

| | | | | | | | | | | | | | | | AIT504 = LT24.82055855: 1 (2.0)

| | | | | | | | | | | | | | | FIT401 = LT0.79857865: 1 (4.0)

| | | | | | | | | | | | | | AIT502 = GT68.25173225: 0 (48.0)

| | | | | | | | | | | | | LIT301 = GT1010.598265

| | | | | | | | | | | | | | AIT501 = GT7.74131627

| | | | | | | | | | | | | | | DPIT301 = LT12.54401685

| | | | | | | | | | | | | | | | FIT601 = GT0.000288341: 1 (33.0/3.0)

| | | | | | | | | | | | | | | | FIT601 = LT0.000288341

| | | | | | | | | | | | | | | | | FIT504 = LT0.211734929: 1 (55.0/14.0)

| | | | | | | | | | | | | | | | | FIT504 = GT0.211734929

| | | | | | | | | | | | | | | | | | FIT401 = GT0.79857865: 0 (13.0/3.0)

| | | | | | | | | | | | | | | | | | FIT401 = LT0.79857865

| | | | | | | | | | | | | | | | | | | FIT501 = GT0.801781585: 1 (6.0)

| | | | | | | | | | | | | | | | | | | FIT501 = LT0.801781585

| | | | | | | | | | | | | | | | | | | | AIT504 = GT24.82055855: 0 (2.0)

| | | | | | | | | | | | | | | | | | | | AIT504 = LT24.82055855: 1 (4.0)

| | | | | | | | | | | | | | | DPIT301 = GT12.54401685

| | | | | | | | | | | | | | | | FIT401 = GT0.79857865: 0 (20.0/3.0)

| | | | | | | | | | | | | | | | FIT401 = LT0.79857865: 1 (13.0/1.0)

| | | | | | | | | | | | | | AIT501 = LT7.74131627: 0 (3.0)

| | | | | | | | | AIT203 = LT235.8625945: 0 (501.0/1.0)

| | | | | | | PIT503 = GT114.481865

| | | | | | | | FIT601 = GT0.000288341

| | | | | | | | | P301 = 1: 0 (44.0)

| | | | | | | | | P301 = 2

| | | | | | | | | | PIT501 = LT159.9429625: 1 (19.0)

| | | | | | | | | | PIT501 = GT159.9429625: 0 (67.0/8.0)

| | | | | | | | FIT601 = LT0.000288341: 0 (144.0)

| | | | | | MV304 = 2: 0 (66.0)

| | | | | P601 = 2: 0 (230.0)

| | | | FIT101 = GT4.385068655

| | | | | P101 = 1: 1 (157.0)

| | | | | P101 = 2

| | | | | | FIT601 = GT0.000288341: 0 (46.0)

| | | | | | FIT601 = LT0.000288341: 1 (61.0/4.0)

| | | LIT101 = LT545.1423: 0 (361.0)

| | FIT301 = GT1.72693199: 0 (381.0)

| AIT402 = GT6.677774905: 0 (9644.0)

LIT401 = LT787.028992: 1 (399.0)

Number of Leaves : 68

Size of the tree : 132

Time taken to build model: 0.28 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 14506 96.7325 %

Incorrectly Classified Instances 490 3.2675 %

Kappa statistic 0.8527

Mean absolute error 0.0441

Root mean squared error 0.1523

Relative absolute error 19.705 %

Root relative squared error 45.5099 %

Total Number of Instances 14996

=== Detailed Accuracy By Class ===

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

0.983 0.138 0.980 0.983 0.981 0.853 0.992 0.999 0

0.862 0.017 0.881 0.862 0.871 0.853 0.992 0.947 1

Weighted Avg. 0.967 0.123 0.967 0.967 0.967 0.853 0.992 0.992

=== Confusion Matrix ===

a b <-- classified as

12846 224 | a = 0

266 1660 | b = 1