Decision Tree Visualization (max_depth=5) - CIC IDS 2017

Bwd Packet Length Std <= 1495.688
gini = 0.316
samples = 2264594
value = [1818477, 446117]
class = Benign

True

False

Average Packet Size <= 7.694
gini = 0.214
samples = 2068630
value = [1816185, 252445]
class = Benign

Destination Port <= 261.5
gini = 0.023
samples = 195964
value = [2292, 193672]
class = Attack

Bwd Header Length <= 22.0
gini = 0.486
samples = 566784
value = [330726.0, 236058.0]
class = Benign

Destination Port <= 21.5
gini = 0.022
samples = 1501846
value = [1485459, 16387]
class = Benign

Init_Win_bytes_backward <= 2
gini = 0.002
samples = 193826
value = [163, 193663]
class = Attack

Avg Bwd Segment Size <= 3695.479
gini = 0.008
samples = 2138
value = [2129, 9]
class = Benign

Max Packet Length <= 5.0
gini = 0.454
samples = 341084
value = [118859, 222225]
class = Attack

Init_Win_bytes_forward <= 0.5
gini = 0.115
samples = 225700
value = [211867, 13833]
class = Benign

Fwd IAT Min <= 2.5
gini = 0.43
samples = 9170
value = [2869.0, 6301.0]
class = Attack

Active Std <= 4527712.0
gini = 0.013
samples = 1492676
value = [1482590, 10086]
class = Benign

Init_Win_bytes_backward <= 22
gini = 0.18
samples = 193721
value = [62, 193659]
class = Attack

Init_Win_bytes_bac

Fwd Packet Length Max <= 493.0
gini = 0.18
samples = 10
value = [1, 9]
class = Attack

Destination Port <= 80
gini = 0.448
samples = 169850
value = [112243.0, 5760
class = Benign

Fwd Packet Length Std <= 3.375
gini = 0.074
samples = 171234
value = [6616, 164618]
class = Attack

Destination Port <= 234.5
gini = 0.496
samples = 14128
value = [7673, 6455]
class = Benign

Destination Port <= 22.5
gini = 0.067
samples = 211572
value = [204194, 7378]
class = Benign

Bwd Packets/s <= 3.074
gini = 0.184
samples = 2579
value = [2314, 265]
class = Benign

Total Fwd Packets <= 9.5
gini = 0.154
samples = 6591
value = [555, 6036]
class = Attack

Bwd IAT Std <= 71400000.0
gini = 0.011
samples = 1489757
value = [1481187, 8570]
class = Benign

Bwd IAT Mean <=
gini = 0.4
samples =
value = [140
class = Att

Init_Win_bytes_forwa
gini = 0
samples =
value = [6,
class = A

Fwd Packet Length Me
gini = 0.4
samples =
value = [
class = Benig

gini = 0
samples =
value = [9
class = Be

gini = 0
samples = 9
value = [0, 9]

gini = 0.0
samples = 9
value = [0, 9]
class = Attack

min_seg_size_fo
gini =
samples =
value = [194
class = B

Init_Win_bytes_forward
gini = 0.036
samples = 1676
value = [3037, 16
class = Attack

Fwd IAT Total <= 9
gini = 0.0
samples = 205
value = [357
class = Benig

Init_Win_bytes_bac
gini = 0
samples =
value = [1
class = A

Init_Win_bytes_backward
gini = 0.495
samples = 609
value = [3353, 27
class = Benign

Fwd IAT Max <= 50
gini = 0.04
samples = 200841
value = [200841
class = Beni

Fwd Packet Length Mean
gini = 0.45
samples = 386
value = [132, 254
class = Attack

Subflow Bwd Bytes
gini = 0.01
samples = 21
value = [2182,
class = Benign

min_seg_size_forw
gini = 0
samples =
value = [39
class = A

Destination Port
gini = 0.0
samples = 148
value = [148103
class = Ben

Bwd Packet Length St
gini = 0.2
samples = 9
value = [152,
class = Atta

Subflow Fwd Byte
gini = 0
samples =
value = [1
class = B

Subflow Bwd Bytes
gini = 0
samples = 1
value = [2, 1
class = At

gini = 0
value = [4
class = Be

Bwd IAT Mean <= 99662.75
gini = 0.32
samples = 5
value = [1, 4]
class = Attack

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