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Licensed to: Leo Milea (Evaluation)

Expiration Date: 2022-07-31 79 days left

Maximum File Size: 30 GB

Maximum Instances: unlimited

Maximum Attributes: unlimited

Maximum Classes: unlimited

Connected to: daimensions.brainome.ai (local execution)

**Command:**

brainome -f NN -o gen10.py train\_data.csv

Start Time: 05/13/2022, 00:34 PDT

**Pre-training Measurements**

Data:

Input: train\_data.csv

Target Column: 1.000000000000000000e+00

Number of instances: 5007

Number of attributes: 12288 out of 12288

Number of classes: 2

Class Balance:

1.000000000000000000e+00: 77.77%

0.000000000000000000e+00: 22.23%

Learnability:

Best guess accuracy: 77.77%

Data Sufficiency: Maybe enough data to generalize. [yellow]

Capacity Progression at [ 5%, 10%, 20%, 40%, 80%, 100% ]

8, 9, 10, 10, 11, 11

RF NN DT SVM

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Expected Training Accuracy: 100.00% ---- 100.00% ----

Expected Validation Accuracy: 93.77% ---- 66.65% ----

Recommendations:

Warning: Attribute count greater than number of instances. Collect more data to get better results.

If predictor accuracy is insufficient, try using the effort option -e with a value of 5 or more to increase training time.

**Predictor:**

Classifier Type: Neural Network

System Type: Binary classifier

Training / Validation Split: 60% : 40%

Accuracy:

Best-guess accuracy: 77.77%

Training accuracy: 77.78% (2336/3003 correct)

Validation Accuracy: 77.74% (1558/2004 correct)

Combined Model Accuracy: 77.77% (3894/5007 correct)

Model Capacity (MEC): 24581 bits

Generalization Ratio: 0.07 bits/bit

Percent of Data Memorized: 3214.95%

Resilience to Noise: 1.05 dB

Training Confusion Matrix:

Actual | Predicted

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1.000000000000000000e+00 | 2336 0

0.000000000000000000e+00 | 667 0

Validation Confusion Matrix:

Actual | Predicted

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1.000000000000000000e+00 | 1558 0

0.000000000000000000e+00 | 446 0

Training Accuracy by Class:

1.000000000000000000e+00 | TP FP TN FN TPR TNR PPV NPV F1 TS

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1.000000000000000000e+00 | 2336 667 0 0 100.00% 0.00% 77.79% N/A 87.51% 77.79%

0.000000000000000000e+00 | 0 0 2336 667 0.00% 100.00% N/A 77.79% 0.00% 0.00%

Validation Accuracy by Class:

1.000000000000000000e+00 | TP FP TN FN TPR TNR PPV NPV F1 TS

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1.000000000000000000e+00 | 1558 446 0 0 100.00% 0.00% 77.74% N/A 87.48% 77.74%

0.000000000000000000e+00 | 0 0 1558 446 0.00% 100.00% N/A 77.74% 0.00% 0.00%

**Messages:**

Writing NN predictor file gen10.py

End Time: 05/13/2022, 01:07 PDT

Runtime Duration: 32m 39s