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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 -e4 -split 82 -o gen\_e4\_s50.py train\_data.csv

Start Time: 05/13/2022, 17:41 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.

**Predictor:**

Classifier Type: Neural Network

System Type: Binary classifier

Training / Validation Split: 82% : 18%

Accuracy:

Best-guess accuracy: 77.77%

Training accuracy: 94.64% (3885/4105 correct)

Validation Accuracy: 93.79% (846/902 correct)

Combined Model Accuracy: 94.48% (4731/5007 correct)

Model Capacity (MEC): 157 bits

Generalization Ratio: 18.90 bits/bit

Percent of Data Memorized: 11.69%

Resilience to Noise: -1.39 dB

Training Confusion Matrix:

Actual | Predicted

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1.000000000000000000e+00 | 3098 95

0.000000000000000000e+00 | 125 787

Validation Confusion Matrix:

Actual | Predicted

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1.000000000000000000e+00 | 681 20

0.000000000000000000e+00 | 36 165

Training Accuracy by Class:

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

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1.000000000000000000e+00 | 3098 125 787 95 97.02% 86.29% 96.12% 89.23% 96.57% 93.37%

0.000000000000000000e+00 | 787 95 3098 125 86.29% 97.02% 89.23% 96.12% 87.74% 78.15%

Validation Accuracy by Class:

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

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1.000000000000000000e+00 | 681 36 165 20 97.15% 82.09% 94.98% 89.19% 96.05% 92.40%

0.000000000000000000e+00 | 165 20 681 36 82.09% 97.15% 89.19% 94.98% 85.49% 74.66%

**Messages:**

Writing NN predictor file gen\_e4\_s50.py

End Time: 05/13/2022, 19:14 PDT

Runtime Duration: 1h 33m 16s