(test1) C:\Users\user\Desktop>brainome -f NN -e5 -split 85 -o gen\_e5\_s85.py train\_data.csv

Brainome Table Compiler v1.9-1158-prod

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Licensed to: Yu-Han Pang (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 -e5 -split 85 -o gen\_e5\_s85.py train\_data.csv

Start Time: 05/13/2022, 18:31 UTC

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: 85% : 15%

Accuracy:

Best-guess accuracy: 77.77%

Training accuracy: 94.35% (4015/4255 correct)

Validation Accuracy: 93.61% (704/752 correct)

Combined Model Accuracy: 94.24% (4719/5007 correct)

Model Capacity (MEC): 127 bits

Generalization Ratio: 24.16 bits/bit

Percent of Data Memorized: 9.15%

Resilience to Noise: -1.50 dB

Training Confusion Matrix:

Actual | Predicted

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1.000000000000000000e+00 | 3209 100

0.000000000000000000e+00 | 140 806

Validation Confusion Matrix:

Actual | Predicted

------ | ---------

1.000000000000000000e+00 | 573 12

0.000000000000000000e+00 | 36 131

Training Accuracy by Class:

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

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1.000000000000000000e+00 | 3209 140 806 100 96.98% 85.20% 95.82% 88.96% 96.40% 93.04%

0.000000000000000000e+00 | 806 100 3209 140 85.20% 96.98% 88.96% 95.82% 87.04% 77.06%

Validation Accuracy by Class:

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

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1.000000000000000000e+00 | 573 36 131 12 97.95% 78.44% 94.09% 91.61% 95.98% 92.27%

0.000000000000000000e+00 | 131 12 573 36 78.44% 97.95% 91.61% 94.09% 84.52% 73.18%

Messages:

Writing NN predictor file gen\_e5\_s85.py

End Time: 05/13/2022, 19:54 UTC

Runtime Duration: 1h 22m 14s