Student Information

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2.1 Multilayer Perceptron

2.1.1

There is one hidden layer and five hidden nodes.

2.1.2

It's normalizing by default. Normalizing data is done so that an attribute with a different scale will not decide outcome of distance operations, ultimately decide clustering or classification results.

2.1.3

Training of the network ends when the algorithm finds minimum gradient descent.

2.1.4

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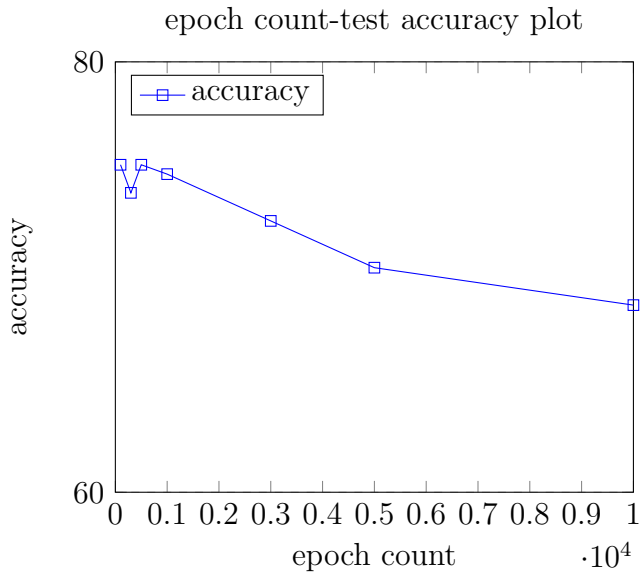
=== Detailed Accuracy By Class ===

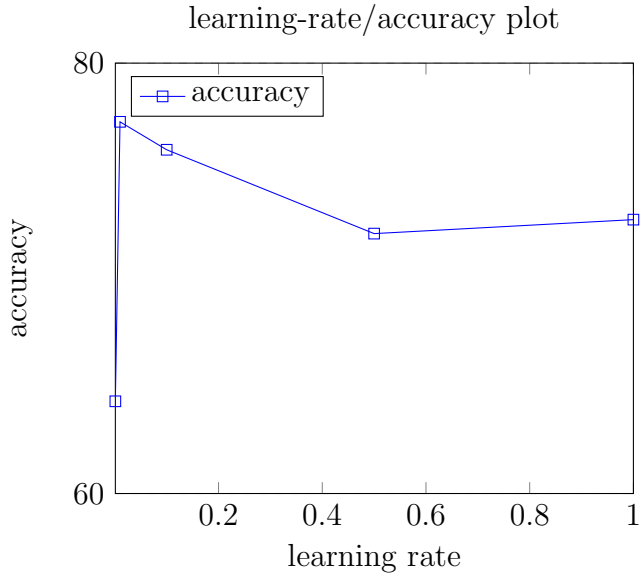
                 TP Rate  FP Rate  Precision  Recall   F-Measure  MCC      ROC Area  PRC Area  Class
                 0.804    0.361    0.830      0.804    0.817      0.435    0.772     0.859     tested_negative
                 0.639    0.196    0.597      0.639    0.617      0.435    0.772     0.680     tested_positive
Weighted Avg.    0.752    0.309    0.757      0.752    0.754      0.435    0.772     0.803
```

2.1.5

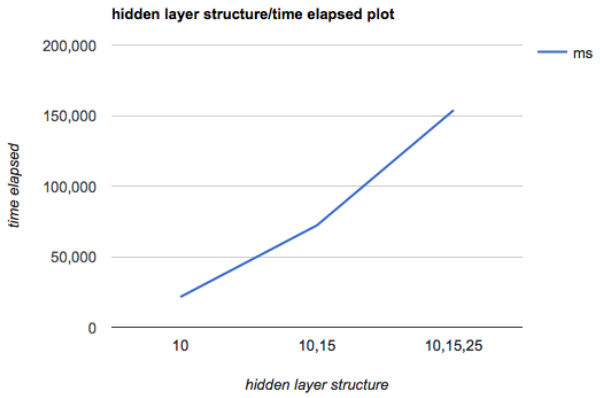


If epoch count increases, accuracy decreases as well. Overfitting may cause this.

2.1.6



Smaller learning rate gives higher accuracy but if it's too small than it might overfit.



More hidden layer multilayer perceptron has,more time elapsed.