**RESULT COMPARISON**

**Experiment Logs:**

**Decision tree**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Experiment** | **Classifier** | **Train/Test Ratio** | **minsplit** | **CP** | **Outcome** |
| **1** | Decision Tree | 80/20 | 20 | 0.01 | 90.41% |
| **2** | Decision Tree | 80/20 | 5 | 0.5 | 36.98% |
| **3** | Decision Tree | 80/20 | 40 | 0.005 | 82.2% |
| **4** | Decision Tree | 80/20 | 10 | 1 | 26% |
| **5** | Decision Tree | 80/20 | 100 | 0.04 | 89.04% |
| **6** | Decision Tree | 80/20 | 2 | 0.3 | 30.13% |
| **7** | Decision Tree | 80/20 | 55 | 1.5 | 32.87% |

**Perceptron**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Experiment** | **Classifier** | **Train/Test Ratio** | **Threshold** | **Repetition** | **Outcome** |
| **1** | Perceptron | 80/20 | 0.01 | 1 | 69% |
| **2** | Perceptron | 80/20 | 0.5 | 5 | 64.3% |
| **3** | Perceptron | 80/20 | 0.001 | 10 | 56.2% |
| **4** | Perceptron | 80/20 | 0.8 | 2 | 50.3% |
| **5** | Perceptron | 80/20 | 0.35 | 4 | 58.90% |
| **6** | Perceptron | 80/20 | 0.2 | 8 | 64.0 % |
| **7** | Perceptron | 80/20 | 0.09 | 12 | 58.9% |

**ANN**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Experiment** | **Classifier** | **Train/Test Ratio** | **Hidden** | **Threshold** | **Repetition** | **Outcome** |
| **1** | Ann | 80/20 | 3 | 0.01 | 1 | 90.4% |
| **2** | Ann | 80/20 | 4 | 0.5 | 5 | 91% |
| **3** | Ann | 80/20 | 8 | 0.001 | 10 | 76.7% |
| **4** | Ann | 80/20 | 10 | 0.8 | 2 | 90.34% |
| **5** | Ann | 80/20 | 15 | 0.35 | 4 | 83.56% |
| **6** | Ann | 80/20 | 7 | 0.2 | 8 | 91.7% |
| **7** | Ann | 80/20 | 6 | 0.09 | 12 | 83.56% |

**SVM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Experiment** | **Classifier** | **Train/Test Ratio** | **COST** | **GAMMA** | **Kernel** | **Outcome** |
| **1** | SVM | 80/20 | 1 | 2 | radial | 23.29% |
| **2** | SVM | 80/20 | 4 | 6 | polynomial | 64.38% |
| **3** | SVM | 80/20 | 10 | 8 | sigmoid | 0% |
| **4** | SVM | 80/20 | 10 | - | linear | 52.54% |
| **5** | SVM | 80/20 | 15 | 0.6 | polynomial | 63.01% |
| **6** | SVM | 80/20 | 7 | - | linear | 61.64% |
| **7** | SVM | 80/20 | 6 | 0.09 | polynomial | 54.79% |

**Naïve Bayes**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Experiment** | **Classifier** | **Train/Test Ratio** | **Laplace** | **Threshold** | **Outcome** |
| **1** | Naive Bayes | 80/20 | 2 | 0.001 | 76.7% |
| **2** | Naive Bayes | 80/20 | 4 | 0.5 | 84.93% |
| **3** | Naïve Bayes | 80/20 | 0.2 | 0.1 | 78.08% |
| **4** | Naïve Bayes | 80/20 | 10 | 0.09 | 84.98% |
| **5** | Naïve Bayes | 80/20 | 6 | 0.3 | 78.21% |
| **6** | Naïve Bayes | 80/20 | 0.08 | 0.87 | 76.7% |
| **7** | Naïve Bayes | 80/20 | 0.9 | 0.7 | 80.82% |