|  |  |  |  |
| --- | --- | --- | --- |
| **Experiment#** | **Parameter(maxdepth)** | **Average Accuracy(in %)** | **Average Precision** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Decision Tree:**

**Perceptron:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Experiment#** | **Parameter(threshold)** | **Average**  **Accuracy** | **Average**  **Precision** |
| 1 | 0.1 | 67.35 | 65.11 |
| 2 | 0.3 | 66.80 | 64.18 |
| **3** | **0.5** | **70.12** | **65.65** |
| 4 | 0.7 | 66.66 | 63.28 |
| 5 | 0.4 | 66.4 | 65.23 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Experiment#** | **Parameter(maxdepth)** |  | **Average Precision** |
| 1 | 10 | 71.43 | 64.88 |
| **2** | **30** | **72.05** | **60.02** |
| 3 | 25 | 70.04 | 61.88 |
| 4 | 20 | 68.16 | 58.663 |
| 5 | - | 71.34 | 63.29 |

**Neural Net:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Experiment#** | **Parameter1**  **(learning rate)** | **Parameter2**  **(rep)** | **Parameter3**  **(threshold)** | **Parameter4**  **(hidden layers)** | **Average Accuracy** | **Average Precision** |
| 1 | 0.4 | 5 | 0.1 | C(4),c(3) | 63.65 | 62.53 |
| **2** | **0.3** | **9** | **0.2** | **C(4,2)** | **68.50** | **65.70** |
| 3 | 0.5 | 10 | 0.2 | C(4,5,2) | 63.07 | 59.59 |
| 4 | 0.5 | 5 | 0.3 | C(3,3,3) | 55.41 | 53.88 |
| 5 | 0.6 | 20 | 0.4 | C(6,4,3) | 57 | 55.24 |

**SVM:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Experiment#** | **Parameter1**  **(cost)** | **Parameter2**  **(gamma)** | **Average Accuracy** | **Average Precision** |
| 1 | 100 | 4 | 71.08 | 49.21 |
| **2** | **100** | **0.5** | **72.13** | **50.51** |
| 3 | 50 | 0.5 | 71.4 | 51.34 |
| 4 | 10 | 0.25 | 70.85 | 50.98 |
| 5 | 10 | 1 | 71.48 | 51.2 |

**Naive Bayes:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Experiment#** | **Parameter1**  **(Laplace)** | **Average Accuracy** | **Average Precision** |
| 1 | 0 | 74.11 | 58.67 |
| **2** | **1** | **74.39** | **57.55** |
| 3 | 2 | 73.68 | 57.43 |
| 4 | 4 | 73.66 | 55.77 |
| 5 | 8 | 73.9 | 55.72 |

**Deep Learning:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Experiment#** | **Parameter1**  **(learning rate)** | **Parameter2**  **(threshold)** | **Parameter3**  **(hidden layers)** | **Average Accuracy** | **Average Precision** |
| **1** | **0.2** | **0.1** | **c(5,8,12,9,15)** | **66.49** | **64.48** |
| 2 | 0.1 | 0.2 | c(5,8,4,7,1) | 59.69 | 59.13 |
| 3 | 0.3 | 0.3 | C(10,4,5,12,6,2) | 59.39 | 57.43 |
| 4 | 0.4 | 0.3 | C(4,4,3,3) | 60.99 | 59.49 |
| 5 | 0.5 | 0.4 | C(5,7,5,3,3,5,8) | 60.22 | 59.9 |

**Logistic Regression:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Experiment #** | **Parameter (Threshold)** | **Average Accuracy(in %)** | **Average Precision** |
| 1 | 0.3 | 72.84 | 63.91 |
| 2 | 0.2 | 42.95 | 56.43 |
| **3** | **0.4** | **74.26** | **68.84** |
| 4 | 0.9 | 71.93 | 70.57 |
| 5 | 0.7 | 72.16 | 67.08 |

**Bagging:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Experiment #** | **Parameter1 (mfinal)** | **Parameter2 (maxdepth)** | **Parameter3**  **(minsplit)** | **Average Accuracy(in %)** | **Average Precision** |
| 1 | 5 | 10 | 20 | 70.17 | 57.14 |
| 2 | 4 | 10 | 10 | 67.52 | 66.0 |
| 3 | 1 | 6 | 5 | 63.95 | 51.76 |
| 4 | **3** | **7** | **-** | **71.50** | **70.67** |
| 5 | 5 | - | 20 | 71.23 | 58.7 |

**AdaBoosting**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Experiment #** | **Parameter1 (mfinal)** | **Parameter2 (maxdepth)** | **Parameter3**  **(minsplit)** | **Parameter4**  **(Bootstrap)** | **Average Accuracy** | **Average Precision** |
| **1** | **5** | **3** | **10** | **false** | **72.21** | **57.14** |
| 2 | 7 | 10 | 7 | false | 69.06 | 66.0 |
| 3 | 7 | 5 | 10 | true | 66.35 | 51.76 |
| 4 | 4 | - | 4 | false | 64.78 | 70.67 |
| 5 | 5 | 10 | 20 | false | 67.22 | 59.12 |

**Random Forest**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Experiment #** | **Parameter1 (ntree)** | **Parameter2 (maxnodes)** | **Parameter3**  **(importance)** | **Average**  **Accuracy** | **Average Precision** |
| 1 | 100 | 20 | true | 70.24 | 56.37 |
| 2 | 500 | 20 | true | 71.09 | 55.10 |
| 3 | 500 | 30 | false | 70.13 | 53.41 |
| 4 | 1000 | 10 | false | 70.21 | 52.48 |
| 5 | **50** | **20** | **true** | **71.2** | **56.64** |

**k-NN**

|  |  |  |  |
| --- | --- | --- | --- |
| **Experiment #** | **Parameter1**  **(k)** | **Average**  **Accuracy** | **Average**  **Precision** |
| 1 | 1 | 74.7 | 57.311 |
| **2** | **5** | **75.431** | **60.55** |
| 3 | 10 | 75.47 | 59.83 |
| 4 | 12 | 74.60 | 58.4 |
| 5 | 7 | 74.59 | 58.81 |

**Gradient Boosting:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Experiment#** | **Parameter1**  **(maxdepth)** | **Parameter2**  **(nrounds)** | **Average**  **Accuracy** | **Average**  **Precision** |
| 1 | 2 | 2 | 72.43 | 59.81 |
| **2** | **3** | **2** | **73.78** | **63.20** |
| 3 | 6 | 4 | 52.18 | 54.39 |
| 4 | 4 | 2 | 72.39 | 62.9 |
| 5 | 3 | 3 | 69.33 | 64.2 |