|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Algorithm** | **Accuracy** | **Precision** | **Recall** | **F1-Score** | **False Positives** |
| Decision Tree |  |  |  |  |  |
| Naïve Bayes |  |  |  |  |  |
| Random Forest |  |  |  |  |  |
| Gradient Boost |  |  |  |  |  |
| XGBoost |  |  |  |  |  |
| SVM |  |  |  |  |  |
| Logistic Regression |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- |
| **Algorithm** | **Accuracy** | **Precision** | **Recall** | **F1-Score** | **False Positives** |
| Decision Tree |  |  |  |  |  |
| Naïve Bayes |  |  |  |  |  |
| Random Forest |  |  |  |  |  |
| Gradient Boost |  |  |  |  |  |
| XGBoost |  |  |  |  |  |
| SVM |  |  |  |  |  |
| Logistic Regression |  |  |  |  |  |

**Table 1: Comparison of Model evaluation metrices**

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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Algorithm** | **Accuracy** | **Precision** | **Recall** | **F1-Score** | **False Positives** |
| Decision Tree | 0.62 | 0.74 | 0.74 | 0.74 | 32 |
| Naïve Bayes | 0.52 | 0.95 | 0.35 | 0.51 | 82 |
| Random Forest | 0.70 | 0.75 | 0.85 | 0.80 | 18 |
| Gradient Boost | 0.67 | 0.73 | 0.84 | 0.78 | 20 |
| XGBoost | 0.66 | 0..4 | 0.36 | 0.38 | 27 |
| SVM | 0.71 | 0.71 | 1.0 | 0.83 | 0 |
| Logistic Regression | 0.73 | 0.74 | 0.95 | 0.83 | 6 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Algorithm** | **Accuracy** | **Precision** | **Recall** | **F1-Score** | **False Positives** |
| Decision Tree | 0.71 | 0.71 | 1.0 | 0.83 | 0 |
| Naïve Bayes | 0.55 | 0.94 | 0.40 | 0.56 | 81 |
| Random Forest | 0.71 | 0.77 | 0.85 | 0.81 | 18 |
| Gradient Boost | 0.69 | 0.75 | 0.82 | 0.79 | 19 |
| XGBoost | 0.73 | 0.6 | 0.18 | 0.28 | 6 |
| SVM | 0.72 | 0.73 | 1.0 | 0.82 | 0 |
| Logistic Regression | 0.71 | 0.73 | 0.9 | 0.82 | 6 |

**Table 2: Model Evaluation metrices after Hyperparameter Optimization**