|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | Feature Sets | | | |
| Classifiers | Evaluation Metrics | TF-IDF | Word2vec | Glove | FastText |
| Naïve Bayes | Accuracy | 0.624 | 0.476 |  |  |
| Precision | 0.575 | 0.475 |  |  |
| Recall | 0.815 | 0.978 |  |  |
| F1 score | 0.669 | 0.637 |  |  |
| SVM | Accuracy | 0.727 | 0.524 |  |  |
| Precision | 0.767 | 0.000 |  |  |
| Recall | 0.613 | 0.000 |  |  |
| F1 score | 0.672 | 0.000 |  |  |
| Random Forest | Accuracy | 0.708 | 0.632 |  |  |
| Precision | 0.738 | 0.646 |  |  |
| Recall | 0.597 | 0.508 |  |  |
| F1 score | 0.651 | 0.563 |  |  |
| Decision Tree | Accuracy | 0.699 | 0.593 |  |  |
| Precision | 0.722 | 0.572 |  |  |
| Recall | 0.568 | 0.582 |  |  |
| F1 score | 0.631 | 0.571 |  |  |

Table 1: 10-Fold Cross Validation based on accuracy

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | Feature Sets | | | |
| Classifiers | Evaluation Metrics | TF-IDF | Word2vec | Glove | FastText |
| Naïve Bayes | Accuracy | 0.631 | 0.476 |  |  |
| Precision | 0.565 | 0.476 |  |  |
| Recall | 0.975 | 0.975 |  |  |
| F1 score | 0.716 | 0.639 |  |  |
| SVM | Accuracy | 0.690 | 0.512 |  |  |
| Precision | 0.826 | 0.000 |  |  |
| Recall | 0.463 | 0.000 |  |  |
| F1 score | 0.594 | 0.000 |  |  |
| Random Forest | Accuracy | 0.702 | 0.643 |  |  |
| Precision | 0.864 | 0.690 |  |  |
| Recall | 0.463 | 0.488 |  |  |
| F1 score | 0.603 | 0.571 |  |  |
| Decision Tree | Accuracy | 0.655 | 0.560 |  |  |
| Precision | 0.628 | 0.533 |  |  |
| Recall | 0.675 | 0.600 |  |  |
| F1 score | 0.651 | 0.565 |  |  |

Table 2: Result table for Train Test ratio 80:20