| **Source** | **Model** | **Samples Used** | **Accuracy** | **Precision** | **F1 Score** |
| --- | --- | --- | --- | --- | --- |
| **Our Work** | SVM | 30,602 | 98.56% | 99.86% | 99.02% |
| Hassan Bechara (Kaggle Notebook) | SVM | 3,941 | 90.90% | 94.5% | 86% |
| Zhang et al. (2022) | SVM | 30,920 | 75% | 64% | 72% |
| **Our Work** | LR | 30,602 | 98.12% | 99.72% | 97.44% |
| Hassan Bechara (Kaggle Notebook) | LR | 3,941 | 90.74% | 93% | 86% |
| Zhang et al. (2022) | LR | 30,920 | 89% | 94% | 85% |
| **Our Work** | MLP | 30,602 | 99.44% | 99.51% | 99.25% |
| Syed Saqlain Hussain Shah (Kaggle, 2019) | MLP | 4,200 | 97.74% | 92.99% | 96.31% |
| cmdrsam (Kaggle, 2020) | MLP | 4,200 | 97.98% | 94.01% | 96.73% |
| **Our Work** | RNN | 30,602 | 99.06% | 100% | 98.74% |
| Maha Alghawazi et al. (2023) | RNN | 30,907 | 94% | 95% | 92% |
| **Our Work** | LSTM | 30,602 | 99.62% | 99.73% | 99.49% |
| DeraraD (github 2025) | LSTM | 30,907 | 96.42% | 99.62% | 96.34% |
| Md. Abrar Zahin (Kaggle, 2024) | LSTM | 29,666 | 98.31% | 99.47% | 99.87% |