XGBoost

| Stages | | Metrics | | | |
|----------------------------------|---|---|-----------|--------|----------|
| | | Accuracy | Precision | Recall | F1 Score |
| | Research Paper Metrics | 89.1% | | | |
| | Research Paper Metrics | 96% | | 0.95 | 0.96 |
| Base Model | w/o Cross Validation | 89.73% | | | |
| | 5-fold Cross Validation | 88.08% | 88.47% | 87.70% | 88.06% |
| Hyperp aramet er Tuning | GridSearchCV (initial Run w/ randomly chosen parameter values) | 73.72% | | | |
| | GridSearchCV (w/ updated parameter values selected from the 1st run) | 76.20% | | | |
| | Random_search (with n_iter= 50) | with cv = 10 85% with cv= 20 90% with cv= 50 92% | | | |