**Thresholding Table [0.1 - 0.9]:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Threshold** | **Precision** | **Recall** | **F1** |
| **0.100** | **0.278** | **0.970** | **0.433** |
| **0.200** | **0.314** | **0.946** | **0.472** |
| **0.300** | **0.372** | **0.894** | **0.526** |
| **0.400** | **0.443** | **0.832** | **0.578** |
| **0.500** | **0.528** | **0.743** | **0.617** |
| **0.600** | **0.649** | **0.617** | **0.633** |
| **0.700** | **0.694** | **0.548** | **0.612** |
| **0.800** | **0.776** | **0.437** | **0.559** |
| **0.900** | **0.889** | **0.237** | **0.374** |

**Optimum Threshold (max F1): 0.612 with F1: 0.633**

**Accuracy: 0.855**

**Precision: 0.649**

**Recall: 0.617**

**F1 Score: 0.633**

**ROC-AUC: 0.766**

**Specificity: 0.915**

**PR-AUC: 0.488**

**Confusion Matrix (Custom Threshold 0.6):**

|  |  |  |
| --- | --- | --- |
|  | **Predicted Stayed (0)** | **Predicted Left (1)** |
| **Actual Stayed (0)** | **1460** | **135** |
| **Actual Left (1)** | **155** | **250** |