|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SVC** | **Precision**  **(0,1)** | **Recall**  **(0,1)** | **F1 Score**  **(0,1)** | **Accuracy** |
| **Without balancing method** | 0.74  (0.81, 0.67) | 0.66  (0.93, 0.40) | 0.68  (0.87, 0.50) | 0.79 |
| **Random Under Sampler** | 0.70  (0.92, 0.49) | 0.76  (0.69, 0.83) | 0.70  (0.79, 0.62) | 0.72 |
| **Random Over Sampler** | 0.70  (0.91, 0.49) | 0.76  (0.69, 0.82) | 0.70  (0.79, 0.61) | 0.73 |
| **SMOTE** | 0.70  (0.91, 0.49) | 0.75  (0.69, 0.82) | 0.70  (0.78, 0.61) | 0.72 |
| **ADASYN** | 0.70  (0.93, 0.48) | 0.76  (0.66, 0.86) | 0.69  (0.77, 0.61) | 0.71 |
| **BorderlineSMOTE** | 0.71  (0.93, 0.48) | 0.76  (0.66, 0.87) | 0.69  (0.77, 0.62) | 0.71 |
| **SVMSMOTE** | 0.70  (0.91, 0.49) | 0.75  (0.70, 0.81) | 0.70  (0.79, 0.61) | 0.73 |
| **SMOTETomek** | 0.70  (0.91, 0.49) | 0.75  (0.69, 0.82) | 0.70  (0.78, 0.61) | 0.72 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LogisticRegression** | **Precision**  **(0,1)** | **Recall**  **(0,1)** | **F1 Score**  **(0,1)** | **Accuracy** |
| **Without balancing method** | 0.75  (0.82, 0.69) | 0.68  (0.93, 0.43) | 0.70  (0.87, 0.53) | 0.80 |
| **Random Under Sampler** | 0.70  (0.92, 0.49) | 0.76  (0.69, 0.83) | 0.70  (0.79, 0.62) | 0.72 |
| **Random Over Sampler** | 0.70  (0.92, 0.49) | 0.76  (0.69, 0.83) | 0.70  (0.79, 0.62) | 0.73 |
| **SMOTE** | 0.70  (0.91, 0.49) | 0.75  (0.69, 0.82) | 0.70  (0.78, 0.61) | 0.72 |
| **ADASYN** | 0.70  (0.93, 0.47) | 0.75  (0.65, 0.86) | 0.69  (0.76, 0.61) | 0.71 |
| **BorderlineSMOTE** | 0.69  (0.93, 0.46) | 0.75  (0.63, 0.87) | 0.68  (0.75, 0.60) | 0.70 |
| **SVMSMOTE** | 0.70  (0.92, 0.49) | 0.76  (0.69, 0.83) | 0.70  (0.79, 0.62) | 0.73 |
| **SMOTETomek** | 0.70  (0.92, 0.48) | 0.75  (0.68, 0.83) | 0.69  (0.78, 0.61) | 0.72 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **RandomForest** | **Precision**  **(0,1)** | **Recall**  **(0,1)** | **F1 Score**  **(0,1)** | **Accuracy** |
| **Without balancing method** | 0.74  (0.82, 0.66) | 0.68  (0.92, 0.44) | 0.70  (0.87, 0.53) | 0.79 |
| **Random Under Sampler** | 0.70  (0.89, 0.51) | 0.75  (0.74, 0.76) | 0.71  (0.81, 0.61) | 0.74 |
| **Random Over Sampler** | 0.72  (0.84, 0.60) | 0.70  (0.87, 0.53) | 0.71  (0.85, 0.56) | 0.78 |
| **SMOTE** | 0.71  (0.86, 0.56) | 0.73  (0.81, 0.65) | 0.72  (0.84, 0.60) | 0.77 |
| **ADASYN** | 0.70  (0.87, 0.54) | 0.73  (0.79, 0.67) | 0.71  (0.83, 0.60) | 0.76 |
| **BorderlineSMOTE** | 0.71  (0.87, 0.55) | 0.74  (0.80, 0.68) | 0.72  (0.83, 0.61) | 0.77 |
| **SVMSMOTE** | 0.72  (0.86, 0.57) | 0.73  (0.82, 0.64) | 0.72  (0.84, 0.60) | 0.77 |
| **SMOTETomek** | 0.71  (0.86, 0.56) | 0.73  (0.81, 0.64) | 0.72  (0.84, 0.60) | 0.77 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Random Forest** | **Precision**  **(0,1)** | **Recall**  **(0,1)** | **F1 Score**  **(0,1)** | **Accuracy** |
| **Without balancing method** | 0.74  (0.82, 0.66) | 0.68  (0.92, 0.44) | 0.70  (0.87, 0.53) | 0.79 |
| **ADASYN** | 0.70  (0.87, 0.54) | 0.73  (0.79, 0.67) | 0.71  (0.83, 0.60) | 0.76 |
| **BorderlineSMOTE** | 0.71  (0.87, 0.55) | 0.74  (0.80, 0.68) | 0.72  (0.83, 0.61) | 0.77 |
| **CSWRF + BorderlineSMOTE** | 0.72  (0.90, 0.53) | 0.77  (0.76, 0.78) | 0.73  (0.82, 0.63) | 0.76 |