

| Workflow | Rank | HGSC | CCOC | ENOC | LGSC | MUC |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <div>All</div> | <div>All</div> | <div>All</div> | <div>All</div> | <div>All</div> | <div>All</div> | <div>All</div> |
| sequential | 1 | 0.913 | 0.913 | 0.858 | 0.953 | 0.953 |
| smote_xgb | 2 | 0.943 | 0.917 | 0.806 | 0.823 | 0.917 |
| hybrid_xgb | 3 | 0.937 | 0.919 | 0.814 | 0.822 | 0.909 |
| smote_mr | 4 | 0.934 | 0.912 | 0.829 | 0.801 | 0.885 |
| down_mr | 5 | 0.906 | 0.924 | 0.819 | 0.892 | 0.898 |
| two_step | 6 | 0.919 | 0.893 | 0.819 | 0.924 | 0.908 |
| up_xgb | 7 | 0.932 | 0.905 | 0.806 | 0.769 | 0.909 |
| hybrid_mr | 8 | 0.931 | 0.911 | 0.812 | 0.861 | 0.893 |
| smote_rf | 9 | 0.92 | 0.913 | 0.813 | 0.653 | 0.887 |
| up_mr | 10 | 0.928 | 0.899 | 0.815 | 0.81 | 0.875 |
| down_svm | 11 | 0.89 | 0.905 | 0.8 | 0.932 | 0.883 |
| up_svm | 12 | 0.918 | 0.889 | 0.832 | 0.767 | 0.879 |
| hybrid_rf | 13 | 0.929 | 0.897 | 0.811 | 0.726 | 0.893 |
| smote_svm | 14 | 0.915 | 0.864 | 0.81 | 0.794 | 0.878 |
| hybrid_svm | 15 | 0.913 | 0.867 | 0.835 | 0.792 | 0.871 |
| up_rf | 16 | 0.913 | 0.891 | 0.813 | 0.629 | 0.87 |
| down_rf | 17 | 0.904 | 0.934 | 0.702 | 0.852 | 0.852 |
| none_svm | 18 | 0.877 | 0.86 | 0.813 | 0.65 | 0.854 |
| none_rf | 19 | 0.844 | 0.893 | 0.69 | 0.5 | 0.853 |
| down_xgb | 20 | 0.838 | 0.902 | 0.68 | 0.846 | 0.796 |
| none_mr | 21 | 0.511 | 0.505 | 0.511 | 0.5 | 0.5 |
| none_xgb | 22 | 0.508 | 0.52 | 0.5 | 0.5 | 0.5 |