

Supplementary Files

Table 1: (Baseline + CSF)

CT	Accuracy	Precision	Recall	F-Score	AUROC
NB	88.43%	0.873	0.884	0.868	0.846
RF	87.72%	0.869	0.877	0.872	0.867
DT	88.71%	0.884	0.887	0.886	0.885
Simple CART	88.79%	0.883	0.888	0.885	0.885
CS Forest	87.59%	0.898	0.976	0.884	0.887
Forest PA	88.24%	0.876	0.882	0.879	0.886
NB Tree	88.76%	0.881	0.888	0.883	0.885
Sys For	88.91%	0.886	0.889	0.887	0.807
LMT	89.11%	0.887	0.891	0.889	0.853
SMO	88.32%	0.872	0.883	0.865	0.670
SGD	88.57%	0.874	0.886	0.871	0.690
Logistic	88.32%	0.872	0.883	0.865	0.860
Bagging	88.25%	0.876	0.883	0.879	0.884
Lib SVM	88.78%	0.881	0.888	0.884	0.751

Table 2: (Baseline + GRAE)

Classifier	Acc	Precision	Recall	F-Measure	AUROC
NB	82.39%	0.858	0.824	0.837	0.836
RF	89.51%	0.888	0.895	0.890	0.903
DT	89.17%	0.884	0.892	0.886	0.895
Simple CART	89.54%	0.888	0.895	0.889	0.850
CS Forest	86.31%	0.897	0.863	0.874	0.900
Forest PA	89.34%	0.886	0.893	0.888	0.898

NB Tree	89.30%	0.887	0.893	0.889	0.887
Sys For	89.36%	0.885	0.894	0.886	0.843
LMT	89.47%	0.889	0.895	0.891	0.901
SMO	88.37%	0.873	0.884	0.865	0.669
SGD	88.64%	0.875	0.886	0.872	0.689
Logistic	88.27%	0.871	0.883	0.865	0.882
Bagging	89.44%	0.888	0.894	0.890	0.907
Lib SVM	84.51%	0.782	0.845	0.775	0.501

Table 3: (Baseline + IGAE)

Classifier	Acc	Precision	Recall	F-M	AUROC
NB	83.58%	0.862	0.836	0.846	0.851
RF	90.06%	0.895	0.901	0.897	0.925
DT	89.53%	0.892	0.895	0.893	0.922
Simple CART	90.19%	0.897	0.902	0.898	0.855
CS Forest	86.01%	0.897	0.860	0.871	0.926
Forest PA	89.94%	0.893	0.899	0.894	0.920
NB Tree	90.02%	0.895	0.900	0.897	0.915
Sys For	90.16%	0.897	0.902	0.899	0.858
LMT	89.90%	0.894	0.899	0.896	0.927
SMO	88.35%	0.873	0.883	0.865	0.669
SGD	88.48%	0.873	0.885	0.869	0.682
Logistic	88.39%	0.872	0.884	0.868	0.895
Bagging	90%	0.895	0.900	0.897	0.927
Lib SVM	84.51%	0.773	0.845	0.775	0.501

Table 4: (Min-Max + CSF)

C.T.	Acc.	Precision	Recall	F-M.	AUROC
NB	78.12%	0.791	0.781	0.770	0.874
RF	91.52%	0.915	0.915	0.915	0.966
DT	91.07%	0.911	0.911	0.911	0.947
Simple CART	90.49%	0.905	0.905	0.905	0.940
CS Forest	88.54%	0.897	0.885	0.886	0.965
Forest PA	91.51%	0.915	0.915	0.915	0.967
NB Tree	91.49%	0.915	0.915	0.914	0.962
Sys For	90.71%	0.907	0.907	0.907	0.935
LMT	90.43%	0.904	0.904	0.904	0.945
SMO	82.64%	0.836	0.826	0.820	0.796
SGD	84.98%	0.852	0.850	0.847	0.829
Logistic	83.89%	0.843	0.839	0.835	0.912
Bagging	91.26%	0.913	0.913	0.913	0.966
Lib SVM	78.80%	0.813	0.788	0.773	0.744

Table 5: (Min-Max + GRAE)

C.T.	Acc.	Precision	Recall	F-M.	AUROC
NB	78.29%	0.79	0.783	0.774	0.870
RF	91.78%	0.918	0.918	0.918	0.969
DT	91.07%	0.911	0.911	0.911	0.947
Simple CART	90.60%	0.906	0.906	0.906	0.941
CS Forest	89.31%	0.903	0.893	0.894	0.966
Forest PA	91.37%	0.914	0.914	0.914	0.964
NB Tree	91.23%	0.912	0.912	0.912	0.956
Sys For	90.58%	0.906	0.906	0.906	0.943

LMT	90.21%	0.902	0.902	0.902	0.941
SMO	82.64%	0.836	0.826	0.820	0.796
SGD	84.99%	0.852	0.85	0.847	0.829
Logistic	83.86%	0.843	0.839	0.835	0.912
Bagging	91.19%	0.912	0.912	0.912	0.965
Lib SVM	77.48%	0.807	0.775	0.756	0.726

Table 6: (Min-Max + IGAE)

C.T.	Acc.	Precision	Recall	F-M.	AUROC
NB	80.37%	0.802	0.804	0.801	0.868
RF	92.16%	0.922	0.922	0.922	0.970
DT	91.07%	0.911	0.911	0.911	0.947
Simple CART	90.36%	0.904	0.904	0.904	0.939
CS Forest	89.31%	0.903	0.893	0.894	0.966
Forest PA	91.58%	0.916	0.916	0.916	0.965
NB Tree	91.46%	0.914	0.915	0.914	0.963
Sys For	90.53%	0.905	0.905	0.905	0.944
LMT	90.22%	0.902	0.902	0.902	0.943
SMO	82.65%	0.836	0.826	0.820	0.796
SGD	84.96%	0.852	0.850	0.847	0.829
Logistic	84.19%	0.846	0.842	0.838	0.909
Bagging	91.21%	0.912	0.912	0.912	0.965
Lib SVM	77.49%	0.807	0.775	0.756	0.726

Table 7: (Z-Score + CFS)

C.T.	Acc.	Precision	Recall	F-M.	AUROC
NB	76.18%	0.767	0.762	0.752	0.841
RF	91.98%	0.920	0.920	0.920	0.970

DT	90.75%	0.907	0.907	0.907	0.941
Simple CART	90.76%	0.907	0.908	0.907	0.947
CS Forest	88.86%	0.901	0.889	0.889	0.969
Forest PA	91.51%	0.915	0.915	0.915	0.967
NB Tree	91.37%	0.914	0.914	0.914	0.960
Sys For	90.70%	0.907	0.907	0.907	0.944
LMT	90.59%	0.906	0.906	0.906	0.949
SMO	80.76%	0.822	0.808	0.799	0.777
SGD	83.43%	0.839	0.834	0.830	0.813
Logistic	82.99%	0.835	0.830	0.826	0.899
Bagging	91.49%	0.915	0.915	0.915	0.968
Lib SVM	85.68%	0.857	0.857	0.855	0.843

Table 8: Z-Score + GRAE

C.T.	Acc.	Precision	Recall	F-M.	AUROC
NB	75.81%	0.762	0.758	0.750	0.833
RF	92.39%	0.924	0.924	0.924	0.972
DT	90.63%	0.906	0.906	0.906	0.940
Simple CART	90.62%	0.906	0.906	0.906	0.946
CS Forest	88.98%	0.901	0.890	0.891	0.968
Forest PA	91.41%	0.914	0.914	0.914	0.966
NB Tree	90.67%	0.907	0.907	0.907	0.956
Sys For	90.72%	0.907	0.907	0.907	0.948
LMT	90.49%	0.905	0.905	0.905	0.947
SMO	80.76%	0.822	0.808	0.799	0.777
SGD	83.41%	0.839	0.834	0.830	0.813
Logistic	82.96%	0.835	0.830	0.825	0.900
Bagging	91.24%	0.913	0.912	0.913	0.967

Lib SVM	85.58%	0.856	0.856	0.854	0.842
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Table 9: Z-Score + IGAE

C.T.	Acc.	Precision	Recall	F-M.	AUROC
NB	76.76%	0.783	0.768	0.770	0.845
RF	92.26%	0.923	0.923	0.923	0.972
DT	90.75%	0.907	0.907	0.907	0.941
Simple CART	90.17%	0.902	0.902	0.902	0.944
CS Forest	89.28%	0.903	0.893	0.894	0.967
Forest PA	91.46%	0.915	0.915	0.915	0.965
NB Tree	90.76%	0.907	0.908	0.907	0.957
Sys For	90.62%	0.906	0.906	0.906	0.951
LMT	90.14%	0.901	0.901	0.901	0.940
SMO	80.82%	0.823	0.808	0.800	0.777
SGD	83.36%	0.839	0.834	0.830	0.812
Logistic	83.24%	0.838	0.832	0.828	0.894
Bagging	91.44%	0.915	0.914	0.915	0.966
Lib SVM	85.62%	0.857	0.856	0.855	0.843

Table 10: Square root + CFS

C.T.	Acc.	Precision	Recall	F-M.	AUROC
NB	83.10%	0.831	0.831	0.831	0.882
RF	92.09%	0.921	0.921	0.921	0.973
DT	90.47%	0.905	0.905	0.905	0.955
Simple CART	90.60%	0.906	0.906	0.906	0.953
CS Forest	89.76%	0.906	0.898	0.897	0.972
Forest PA	91.46%	0.915	0.915	0.915	0.970
NB Tree	91.48%	0.915	0.915	0.915	0.967

Sys For	91.09%	0.911	0.911	0.911	0.937
LMT	90.52%	0.905	0.905	0.905	0.955
SMO	84.13%	0.844	0.841	0.84	0.838
SGD	84.29%	0.846	0.843	0.842	0.84
Logistic	84.91%	0.852	0.849	0.848	0.905
Bagging	91.60%	0.916	0.916	0.916	0.972
Lib SVM	87.05%	0.87	0.871	0.87	0.87

Table 11: Square root + GRAE

C.T.	Acc.	Precision	Recall	F-M.	AUROC
NB	82.69%	0.827	0.827	0.827	0.877
RF	92.24%	0.923	0.922	0.922	0.974
DT	90.47%	0.905	0.905	0.905	0.955
Simple CART	90.45%	0.905	0.905	0.905	0.95
CS Forest	89.71%	0.906	0.897	0.897	0.972
Forest PA	91.56%	0.916	0.916	0.916	0.969
NB Tree	91.77%	0.918	0.918	0.918	0.969
Sys For	91.17%	0.912	0.912	0.912	0.942
LMT	90.55%	0.906	0.906	0.906	0.954
SMO	84.12%	0.844	0.841	0.84	0.838
SGD	84.26%	0.845	0.843	0.842	0.84
Logistic	84.65%	0.849	0.847	0.846	0.902
Bagging	91.85%	0.919	0.919	0.919	0.971
Lib SVM	86.85%	0.868	0.868	0.868	0.868

Table 12: Square root + IGAE

C.T.	Acc.	Precision	Recall	F-M.	AUROC
NB	83.24%	0.832	0.832	0.832	0.882

RF	92.22%	0.922	0.922	0.922	0.975
DT	90.47%	0.905	0.905	0.905	0.955
Simple CART	90.29%	0.903	0.903	0.903	0.948
CS Forest	89.97%	0.907	0.9	0.9	0.972
Forest PA	91.17%	0.912	0.912	0.912	0.969
NB Tree	91.81%	0.919	0.918	0.918	0.967
Sys For	91.03%	0.91	0.91	0.91	0.944
LMT	90.78%	0.908	0.908	0.908	0.956
SMO	84.09%	0.844	0.841	0.84	0.838
SGD	84.21%	0.845	0.842	0.841	0.839
Logistic	84.51%	0.848	0.845	0.844	0.898
Bagging	91.51%	0.915	0.915	0.915	0.969
Lib SVM	86.87%	0.869	0.869	0.869	0.868