

Table II – Experimental results (extended)

	Metrics	ecoli2										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.786 / .797	.825 / .831	.735 / .748	.666 / .684	.832 / .836	.859 / .865	.894 / .898	.469 / .543	.690 / .713	.815 / .826	.859 / .865
	AUROC / AUPRC	.849 / .730	.935 / .875	.930 / .825	.938 / .849	.912 / .745	.949 / .885	.952 / .911	.939 / .816	.937 / .845	.967 / .911	.962 / .905
ROS	F1 / GM	.788 / .794	.809 / .813	.778 / .788	.720 / .739	.832 / .836	.730 / .745	.713 / .733	.390 / .481	.782 / .794	.824 / .831	.846 / .850
	AUROC / AUPRC	.882 / .627	.964 / .900	.954 / .888	.937 / .837	.912 / .745	.935 / .765	.938 / .783	.936 / .815	.941 / .840	.960 / .913	.962 / .921
SMOTE	F1 / GM	.763 / .773	.800 / .804	.755 / .766	.747 / .762	.773 / .782	.763 / .774	.774 / .785	.514 / .578	.768 / .781	.836 / .840	.886 / .889
	AUROC / AUPRC	.858 / .556	.957 / .875	.945 / .881	.936 / .843	.903 / .654	.936 / .780	.942 / .843	.944 / .845	.936 / .844	.969 / .927	.963 / .917
RSLs	F1 / GM	.758 / .767	.820 / .823	.755 / .766	.741 / .748	.832 / .836	.858 / .861	.873 / .876	.569 / .621	.738 / .746	.821 / .830	.892 / .895
	AUROC / AUPRC	.862 / .679	.962 / .902	.941 / .840	.937 / .845	.912 / .745	.948 / .873	.951 / .900	.938 / .828	.939 / .850	.960 / .918	.956 / .897
TOP+V	F1 / GM	.811 / .821	.877 / .881	.794 / .805	.728 / .733	.832 / .836	.870 / .875	.894 / .898	.469 / .543	.759 / .765	.875 / .880	.905 / .908
	AUROC / AUPRC	.869 / .752	.957 / .900	.912 / .819	.931 / .838	.912 / .745	.950 / .890	.952 / .911	.939 / .816	.911 / .818	.954 / .892	.969 / .905
TOP+ ROSE	F1 / GM	.832 / .843	.877 / .881	.785 / .796	.738 / .745	.846 / .851	.870 / .875	.894 / .898	.469 / .543	.746 / .755	.850 / .858	.905 / .908
	AUROC / AUPRC	.864 / .764	.957 / .900	.925 / .855	.939 / .850	.930 / .756	.950 / .890	.951 / .896	.939 / .816	.933 / .841	.973 / .922	.976 / .913
TOP+ SMOTE	F1 / GM	.811 / .821	.877 / .881	.787 / .795	.730 / .738	.846 / .851	.870 / .875	.894 / .898	.522 / .584	.748 / .765	.857 / .862	.894 / .897
	AUROC / AUPRC	.869 / .752	.957 / .900	.951 / .886	.935 / .837	.930 / .756	.950 / .890	.951 / .896	.945 / .834	.952 / .859	.970 / .911	.968 / .914
TOP+ RSLs	F1 / GM	.811 / .821	.877 / .881	.816 / .823	.743 / .760	.846 / .851	.870 / .875	.894 / .898	.617 / .659	.769 / .782	.868 / .873	.894 / .897
	AUROC / AUPRC	.869 / .752	.957 / .900	.949 / .899	.939 / .852	.930 / .756	.950 / .890	.951 / .896	.950 / .876	.937 / .837	.978 / .926	.968 / .914
OVUN	F1 / GM	.812 / .819	.801 / .807	.723 / .739	.732 / .742	.836 / .842	.778 / .788	.865 / .868	.434 / .515	.725 / .737	.852 / .858	.886 / .889
	AUROC / AUPRC	.876 / .719	.950 / .876	.935 / .832	.935 / .838	.921 / .749	.940 / .813	.948 / .872	.939 / .831	.937 / .839	.965 / .900	.960 / .908
ROSE	F1 / GM	.275 / .399	.275 / .399	.428 / .515	.737 / .755	.633 / .666	.677 / .704	.673 / .701	.342 / .447	.728 / .744	.311 / .425	.769 / .781
	AUROC / AUPRC	.518 / .160	.518 / .160	.937 / .848	.934 / .801	.863 / .472	.928 / .729	.944 / .784	.946 / .866	.934 / .797	.945 / .854	.952 / .889
DBSM*	F1 / GM	.767 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----
	AUROC / AUPRC	.894 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----

	Metrics	glass0										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.704 / .714	.747 / .755	.670 / .678	.595 / .604	.711 / .717	.663 / .672	.692 / .694	.622 / .654	.634 / .639	.787 / .794	.688 / .696
	AUROC / AUPRC	.772 / .629	.904 / .863	.871 / .754	.818 / .668	.785 / .625	.847 / .709	.880 / .773	.762 / .573	.828 / .696	.937 / .901	.874 / .776
ROS	F1 / GM	.721 / .732	.786 / .793	.763 / .774	.638 / .648	.711 / .717	.727 / .739	.708 / .722	.635 / .669	.692 / .701	.780 / .789	.743 / .754
	AUROC / AUPRC	.792 / .655	.898 / .848	.903 / .824	.812 / .659	.785 / .625	.843 / .678	.856 / .714	.760 / .588	.825 / .640	.929 / .870	.886 / .800
SMOTE	F1 / GM	.675 / .684	.768 / .772	.691 / .706	.622 / .630	.718 / .725	.709 / .716	.717 / .729	.622 / .654	.650 / .663	.807 / .812	.724 / .733
	AUROC / AUPRC	.724 / .550	.900 / .836	.896 / .800	.816 / .667	.792 / .620	.853 / .701	.866 / .715	.766 / .580	.818 / .628	.931 / .879	.879 / .785
RSLs	F1 / GM	.708 / .717	.781 / .786	.711 / .720	.614 / .622	.714 / .721	.685 / .690	.691 / .700	.620 / .653	.659 / .671	.814 / .819	.738 / .745
	AUROC / AUPRC	.764 / .579	.923 / .868	.897 / .801	.809 / .661	.789 / .615	.852 / .698	.866 / .730	.764 / .577	.825 / .662	.934 / .881	.878 / .781
TOP+V	F1 / GM	.759 / .773	.806 / .815	.747 / .757	.713 / .727	.745 / .753	.748 / .757	.743 / .751	.661 / .700	.714 / .734	.831 / .836	.743 / .751
	AUROC / AUPRC	.826 / .638	.918 / .865	.867 / .750	.817 / .656	.817 / .648	.876 / .730	.889 / .783	.762 / .560	.815 / .650	.938 / .888	.854 / .740
TOP+ ROSE	F1 / GM	.743 / .754	.763 / .772	.741 / .752	.652 / .667	.711 / .717	.716 / .739	.732 / .748	.658 / .698	.692 / .708	.819 / .822	.704 / .713
	AUROC / AUPRC	.819 / .633	.911 / .838	.913 / .849	.816 / .673	.785 / .625	.858 / .696	.862 / .715	.756 / .548	.822 / .664	.939 / .874	.869 / .784
TOP+ SMOTE	F1 / GM	.724 / .736	.747 / .755	.730 / .741	.659 / .675	.711 / .717	.716 / .739	.732 / .748	.658 / .698	.695 / .711	.799 / .806	.712 / .722
	AUROC / AUPRC	.815 / .611	.904 / .863	.901 / .822	.816 / .671	.785 / .625	.856 / .694	.863 / .716	.756 / .548	.828 / .677	.940 / .885	.884 / .805
TOP+ RSLs	F1 / GM	.724 / .736	.747 / .755	.741 / .754	.659 / .675	.711 / .717	.716 / .739	.732 / .748	.658 / .698	.692 / .708	.806 / .812	.710 / .721
	AUROC / AUPRC	.815 / .611	.904 / .863	.902 / .823	.816 / .671	.785 / .625	.856 / .694	.863 / .716	.756 / .548	.830 / .680	.937 / .875	.879 / .800
OVUN	F1 / GM	.716 / .725	.763 / .774	.689 / .699	.606 / .615	.700 / .705	.687 / .692	.686 / .689	.625 / .656	.643 / .649	.775 / .781	.684 / .690
	AUROC / AUPRC	.780 / .609	.892 / .822	.871 / .758	.816 / .666	.778 / .606	.851 / .717	.877 / .767	.788 / .606	.830 / .689	.934 / .895	.878 / .782
ROSE	F1 / GM	.644 / .682	.639 / .680	.631 / .676	.640 / .658	.607 / .648	.631 / .679	.623 / .673	.636 / .678	.637 / .679	.636 / .678	.641 / .680
	AUROC / AUPRC	.729 / .484	.823 / .635	.818 / .785	.792 / .612	.688 / .450	.715 / .472	.729 / .497	.751 / .574	.800 / .624	.789 / .596	.814 / .665
DBSM*	F1 / GM	.711 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----
	AUROC / AUPRC	.788 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----

	Metrics	glass1										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.608 / .629	.679 / .693	.590 / .611	.435 / .460	.783 / .789	.709 / .718	.716 / .724	.612 / .645	.663 / .678	.731 / .742	.602 / .611
	AUROC / AUPRC	.735 / .646	.860 / .754	.828 / .746	.703 / .564	.832 / .762	.879 / .817	.895 / .814	.714 / .569	.852 / .755	.915 / .866	.789 / .699
ROS	F1 / GM	.621 / .628	.720 / .728	.690 / .699	.575 / .592	.778 / .787	.751 / .756	.732 / .740	.606 / .646	.672 / .690	.771 / .782	.612 / .619
	AUROC / AUPRC	.673 / .584	.889 / .841	.848 / .786	.715 / .578	.827 / .771	.883 / .824	.875 / .811	.701 / .564	.842 / .761	.914 / .866	.812 / .739
SMOTE	F1 / GM	.571 / .578	.679 / .693	.601 / .617	.435 / .460	.783 / .789	.709 / .718	.716 / .724	.612 / .645	.635 / .651	.760 / .776	.596 / .609
	AUROC / AUPRC	.692 / .569	.860 / .754	.827 / .745	.703 / .564	.832 / .762	.879 / .817	.895 / .814	.714 / .569	.859 / .786	.904 / .858	.793 / .721
RSLs	F1 / GM	.673 / .676	.782 / .785	.654 / .661	.576 / .590	.783 / .787	.755 / .759	.760 / .765	.617 / .654	.649 / .657	.778 / .787	.734 / .639
	AUROC / AUPRC	.777 / .673	.896 / .833	.839 / .761	.706 / .569	.832 / .750	.887 / .826	.897 / .832	.688 / .517	.842 / .748	.907 / .843	.696 / .695
TOP+V	F1 / GM	.748 / .751	.798 / .804	.693 / .707	.621 / .640	.819 / .824	.757 / .762	.771 / .775	.628 / .666	.726 / .738	.805 / .810	.638 / .654
	AUROC / AUPRC	.829 / .745	.899 / .834	.802 / .648	.719 / .552	.864 / .784	.895 / .826	.903 / .822	.696 / .541	.864 / .813	.921 / .875	.781 / .676
TOP+ ROSE	F1 / GM	.678 / .682	.769 / .776	.662 / .668	.612 / .644	.792 / .798	.776 / .781	.752 / .759	.620 / .659	.683 / .703	.768 / .775	.658 / .669
	AUROC / AUPRC	.746 / .611	.899 / .829	.856 / .793	.727 / .597	.842 / .753	.892 / .830	.904 / .811	.716 / .570	.848 / .716	.913 / .870	.821 / .733
TOP+ SMOTE	F1 / GM	.698 / .711	.757 / .766	.650 / .657	.600 / .639	.792 / .802	.772 / .777	.744 / .755	.620 / .659	.703 / .714	.772 / .774	.675 / .683
	AUROC / AUPRC	.784 / .650	.903 / .854	.834 / .767	.724 / .599	.847 / .691	.885 / .814	.912 / .839	.706 / .566	.851 / .743	.908 / .855	.802 / .703
TOP+ RSLs	F1 / GM	.662 / .674	.750 / .756	.646 / .682	.605 / .643	.797 / .798	.772 / .777	.770 / .779	.618 / .657	.703 / .711	.771 / .773	.648 / .654
	AUROC / AUPRC	.723 / .556	.902 / .845	.839 / .777	.726 / .600	.845 / .740	.888 / .820	.910 / .826	.683 / .554	.849 / .774	.892 / .834	.802 / .709
OVUN	F1 / GM	.642 / .657	.760 / .767	.629 / .641	.524 / .541	.787 / .793	.731 / .741	.746 / .754	.597 / .636	.669 / .688	.745 / .751	.611 / .615
	AUROC / AUPRC	.748 / .646	.906 / .865	.843 / .753	.735 / .603	.836 / .761	.878 / .817	.899 / .821	.646 / .514	.857 / .788	.919 / .861	.798 / .719
ROSE	F1 / GM	.578 / .604	.567 / .582	.628 / .648	.442 / .447	.625 / .642	.646 / .666	.614 / .635	.594 / .638	.647 / .665	.670 / .682	.588 / .606
	AUROC / AUPRC	.643 / .478	.699 / .535	.734 / .610	.647 / .479	.695 / .505	.736 / .557	.720 / .549	.724 / .597	.747 / .609	.744 / .607	.741 / .632
DBSM*	F1 / GM	.710 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----
	AUROC / AUPRC	.777 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----

	Metrics	glass6										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.766 / .781	.868 / .879	.858 / .871	.850 / .862	.864 / .875	.805 / .819	.810 / .822	.844 / .853	.825 / .837	.886 / .895	.800 / .824
	AUROC / AUPRC	.907 / .805	.933 / .896	.961 / .895	.947 / .832	.917 / .813	.920 / .878	.912 / .854	.930 / .783	.975 / .930	.979 / .962	.995 / .976
ROS	F1 / GM	.763 / .781	.883 / .891	.869 / .878	.773 / .786	.864 / .875	.782 / .789	.740 / .753	.808 / .821	.867 / .878	.886 / .895	.867 / .879
	AUROC / AUPRC	.852 / .624	.958 / .918	.967 / .933	.945 / .786	.917 / .813	.913 / .808	.911 / .807	.922 / .792	.971 / .911	.970 / .922	.995 / .976
SMOTE	F1 / GM	.789 / .805	.912 / .917	.850 / .858	.797 / .810	.886 / .896	.859 / .867	.812 / .825	.818 / .830	.883 / .891	.891 / .900	.886 / .895
	AUROC / AUPRC	.882 / .721	.953 / .928	.964 / .930	.948 / .805	.939 / .838	.939 / .850	.954 / .872	.885 / .811	.986 / .945	.970 / .942	.991 / .963
RSLs	F1 / GM	.824 / .835	.896 / .908	.883 / .891	.830 / .842	.864 / .875	.805 / .819	.782 / .795	.775 / .788	.810 / .824	.891 / .900	.800 / .824
	AUROC / AUPRC	.939 / .822	.965 / .927	.964 / .896	.949 / .842	.917 / .813	.915 / .828	.911 / .851	.906 / .771	.975 / .930	.982 / .970	.995 / .976
TOP+V	F1 / GM	.830 / .838	.868 / .879	.911 / .918	.850 / .862	.864 / .875	.805 / .819	.810 / .822	.844 / .853	.892 / .898	.926 / .932	.830 / .848
	AUROC / AUPRC	.934 / .775	.933 / .896	.964 / .939	.947 / .832	.917 / .813	.920 / .878	.912 / .854	.930 / .783	.975 / .942	.974 / .946	.995 / .976
TOP+ ROSE	F1 / GM	.870 / .876	.873 / .885	.911 / .918	.898 / .903	.864 / .875	.820 / .826	.810 / .822	.844 / .853	.892 / .898	.906 / .913	.866 / .877
	AUROC / AUPRC	.937 / .805	.945 / .915	.949 / .898	.935 / .883	.917 / .813	.915 / .828	.912 / .854	.930 / .783	.982 / .951	.953 / .917	.993 / .972
TOP+ SMOTE	F1 / GM	.839 / .849	.898 / .903	.891 / .900	.850 / .862	.897 / .905	.850 / .858	.810 / .822	.844 / .853	.892 / .898	.926 / .932	.860 / .872
	AUROC / AUPRC	.902 / .766	.953 / .904	.961 / .902	.951 / .847	.942 / .853	.939 / .850	.908 / .842	.919 / .788	.988 / .967	.989 / .939	.995 / .976
TOP+ RSLs	F1 / GM	.829 / .841	.898 / .903	.901 / .909	.850 / .862	.864 / .875	.820 / .826	.810 / .822	.844 / .853	.892 / .898	.926 / .932	.860 / .872
	AUROC / AUPRC	.900 / .726	.953 / .904	.971 / .951	.951 / .847	.917 / .813	.915 / .828	.908 / .842	.919 / .788	.973 / .933	.969 / .937	.995 / .976
OVUN	F1 / GM	.797 / .805	.864 / .871	.844 / .857	.850 / .862	.864 / .875	.800 / .806	.782 / .795	.796 / .807	.859 / .869	.872 / .884	.800 / .824
	AUROC / AUPRC	.900 / .737	.921 / .854	.965 / .905	.942 / .826	.917 / .813	.914 / .823	.912 / .858	.949 / .794	.972 / .894	.993 / .959	.995 / .976
ROSE	F1 / GM	.828 / .844	.861 / .873	.872 / .882	.859 / .867	.791 / .802	.849 / .858	.847 / .860	.790 / .804	.839 / .849	.848 / .858	.775 / .792
	AUROC / AUPRC	.927 / .761	.974 / .955	.964 / .937	.948 / .831	.920 / .681	.958 / .806	.963 / .821	.946 / .774	.949 / .944	.972 / .954	.970 / .957
DBSM*	F1 / GM	.829 / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----
	AUROC / AUPRC	.903 / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----

	Metrics	haberman										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.170 / .172	.190 / .193	.341 / .360	.242 / .295	.410 / .415	.344 / .357	.308 / .325	.289 / .336	.337 / .358	.287 / .289	.223 / .265
	AUROC / AUPRC	.516 / .290	.529 / .314	.670 / .470	.676 / .493	.609 / .393	.630 / .433	.619 / .420	.631 / .470	.679 / .453	.652 / .404	.671 / .464
ROS	F1 / GM	.458 / .464	.466 / .470	.512 / .516	.447 / .452	.438 / .438	.459 / .470	.452 / .462	.385 / .403	.425 / .431	.355 / .358	.496 / .498
	AUROC / AUPRC	.627 / .407	.698 / .438	.703 / .474	.667 / .488	.613 / .401	.632 / .414	.627 / .407	.622 / .468	.646 / .484	.642 / .392	.694 / .486
SMOTE	F1 / GM	.498 / .500	.471 / .474	.495 / .498	.432 / .446	.408 / .410	.411 / .416	.400 / .407	.361 / .387	.469 / .472	.355 / .357	.438 / .444
	AUROC / AUPRC	.660 / .429	.627 / .370	.702 / .505	.678 / .495	.603 / .365	.617 / .414	.632 / .433	.615 / .464	.663 / .448	.665 / .420	.715 / .506
RSLs	F1 / GM	.466 / .472	.456 / .466	.460 / .463	.424 / .438	.399 / .401	.399 / .401	.345 / .347	.351 / .379	.389 / .390	.337 / .337	.446 / .452
	AUROC / AUPRC	.625 / .393	.650 / .400	.683 / .491	.675 / .494	.600 / .375	.619 / .400	.607 / .384	.611 / .460	.608 / .408	.648 / .376	.717 / .506
TOP+V	F1 / GM	.484 / .512	.471 / .497	.497 / .536	.492 / .498	.456 / .464	.457 / .525	.469 / .530	.455 / .524	.478 / .509	.455 / .503	.473 / .508
	AUROC / AUPRC	.609 / .350	.607 / .347	.662 / .435	.652 / .449	.640 / .375	.555 / .304	.548 / .296	.563 / .338	.658 / .441	.604 / .324	.618 / .377
TOP+ROSE	F1 / GM	.509 / .518	.502 / .512	.485 / .518	.462 / .503	.465 / .532	.481 / .494	.435 / .457	.437 / .447	.480 / .505	.474 / .510	.481 / .484
	AUROC / AUPRC	.635 / .361	.643 / .385	.696 / .518	.672 / .496	.594 / .321	.653 / .446	.621 / .391	.616 / .465	.671 / .456	.636 / .366	.714 / .508
TOP+SMOTE	F1 / GM	.452 / .499	.453 / .503	.465 / .522	.427 / .504	.469 / .532	.457 / .460	.441 / .524	.423 / .499	.464 / .499	.465 / .499	.443 / .514
	AUROC / AUPRC	.640 / .369	.677 / .434	.685 / .450	.633 / .433	.600 / .326	.651 / .455	.555 / .298	.593 / .421	.653 / .460	.639 / .376	.632 / .464
TOP+RSLs	F1 / GM	.493 / .517	.453 / .503	.474 / .531	.427 / .504	.469 / .532	.480 / .526	.494 / .545	.423 / .499	.463 / .496	.471 / .520	.445 / .518
	AUROC / AUPRC	.652 / .402	.677 / .434	.680 / .470	.633 / .433	.600 / .326	.638 / .350	.641 / .354	.593 / .421	.665 / .437	.638 / .397	.630 / .459
OVUN	F1 / GM	.497 / .519	.500 / .519	.507 / .535	.457 / .507	.453 / .463	.466 / .485	.473 / .497	.431 / .479	.502 / .520	.483 / .497	.488 / .520
	AUROC / AUPRC	.668 / .413	.674 / .454	.702 / .471	.623 / .447	.614 / .364	.664 / .436	.661 / .439	.584 / .415	.675 / .489	.677 / .411	.671 / .455
ROSE	F1 / GM	.475 / .479	.486 / .490	.478 / .479	.417 / .420	.366 / .376	.391 / .401	.395 / .402	.368 / .389	.433 / .438	.430 / .440	.396 / .399
	AUROC / AUPRC	.640 / .427	.645 / .424	.648 / .439	.653 / .472	.542 / .296	.568 / .340	.592 / .377	.611 / .456	.648 / .454	.640 / .406	.645 / .456
DBSM*	F1 / GM	.467 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----
	AUROC / AUPRC	.622 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----

	Metrics	Liver-disorders										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.700 / .703	.746 / .749	.739 / .741	.696 / .701	.664 / .668	.678 / .680	.703 / .704	.352 / .399	.686 / .688	.763 / .766	.657 / .659
	AUROC / AUPRC	.617 / .653	.747 / .754	.744 / .771	.708 / .757	.620 / .668	.640 / .677	.679 / .717	.634 / .696	.700 / .759	.765 / .777	.659 / .715
ROS	F1 / GM	.682 / .685	.740 / .742	.785 / .786	.692 / .696	.708 / .711	.680 / .683	.686 / .688	.412 / .448	.746 / .748	.774 / .778	.720 / .722
	AUROC / AUPRC	.631 / .673	.732 / .765	.783 / .814	.710 / .765	.623 / .661	.650 / .688	.662 / .701	.647 / .714	.732 / .753	.754 / .792	.696 / .753
SMOTE	F1 / GM	.746 / .750	.746 / .748	.774 / .780	.733 / .735	.681 / .684	.692 / .694	.735 / .738	.501 / .525	.729 / .731	.759 / .762	.721 / .724
	AUROC / AUPRC	.642 / .679	.735 / .763	.753 / .785	.707 / .759	.617 / .662	.633 / .672	.683 / .708	.644 / .706	.686 / .715	.733 / .778	.687 / .745
RSLs	F1 / GM	.736 / .740	.746 / .748	.772 / .777	.733 / .735	.681 / .684	.692 / .694	.735 / .738	.501 / .525	.672 / .674	.784 / .785	.725 / .728
	AUROC / AUPRC	.642 / .686	.735 / .763	.770 / .801	.707 / .759	.617 / .662	.633 / .672	.683 / .708	.644 / .706	.664 / .715	.759 / .778	.691 / .748
TOP+V	F1 / GM	.645 / .651	.662 / .675	.693 / .701	.653 / .664	.614 / .650	.624 / .654	.628 / .636	.621 / .652	.644 / .648	.686 / .691	.630 / .641
	AUROC / AUPRC	.676 / .576	.723 / .613	.772 / .716	.738 / .700	.575 / .464	.625 / .505	.689 / .625	.636 / .546	.719 / .635	.766 / .742	.700 / .665
TOP+ROSE	F1 / GM	.606 / .644	.663 / .667	.679 / .689	.631 / .642	.621 / .646	.618 / .645	.616 / .639	.608 / .622	.628 / .640	.678 / .687	.628 / .631
	AUROC / AUPRC	.717 / .472	.762 / .727	.765 / .727	.714 / .666	.601 / .485	.669 / .573	.678 / .598	.636 / .547	.704 / .648	.771 / .740	.729 / .718
TOP+SMOTE	F1 / GM	.629 / .644	.649 / .654	.660 / .664	.628 / .647	.623 / .647	.608 / .637	.608 / .644	.618 / .645	.643 / .646	.656 / .676	.620 / .624
	AUROC / AUPRC	.657 / .536	.735 / .699	.789 / .760	.700 / .642	.604 / .487	.665 / .563	.661 / .563	.643 / .551	.741 / .717	.739 / .700	.715 / .708
TOP+RSLs	F1 / GM	.609 / .636	.649 / .654	.660 / .664	.639 / .657	.623 / .647	.618 / .645	.608 / .644	.619 / .646	.641 / .654	.678 / .687	.623 / .633
	AUROC / AUPRC	.593 / .482	.735 / .699	.789 / .760	.707 / .650	.604 / .487	.679 / .573	.661 / .563	.650 / .552	.703 / .625	.771 / .740	.709 / .680
OVUN	F1 / GM	.581 / .591	.627 / .642	.641 / .664	.614 / .632	.568 / .575	.575 / .587	.596 / .610	.615 / .647	.627 / .634	.621 / .631	.584 / .595
	AUROC / AUPRC	.594 / .490	.700 / .624	.704 / .651	.696 / .644	.602 / .493	.620 / .532	.633 / .542	.624 / .536	.699 / .638	.733 / .671	.653 / .611
ROSE	F1 / GM	.564 / .586	.552 / .573	.567 / .573	.556 / .560	.545 / .553	.538 / .546	.526 / .534	.584 / .606	.549 / .556	.543 / .545	.570 / .574
	AUROC / AUPRC	.541 / .457	.547 / .444	.673 / .613	.699 / .631	.565 / .470	.569 / .475	.550 / .482	.620 / .555	.620 / .555	.617 / .569	.656 / .592
DBSM*	F1 / GM	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----
	AUROC / AUPRC	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----

	Metrics	new-thyroid1										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.870 / .880	.920 / .926	.868 / .883	.940 / .944	.930 / .939	.871 / .886	.849 / .867	.898 / .906	.989 / .989	.946 / .950	.879 / .888
	AUROC / AUPRC	.944 / .827	.996 / .968	1.00 / 1.00	.985 / .959	.950 / .925	.965 / .943	.963 / .935	.996 / .977	1.00 / 1.00	1.00 / 1.00	.994 / .974
ROS	F1 / GM	.909 / .915	.920 / .926	.943 / .947	.940 / .944	.930 / .939	.890 / .902	.818 / .835	.868 / .879	.989 / .989	.923 / .929	.926 / .930
	AUROC / AUPRC	.936 / .880	.965 / .937	.999 / .994	.968 / .935	.950 / .925	.967 / .949	.967 / .949	.996 / .977	1.00 / 1.00	1.00 / 1.00	.997 / .989
SMOTE	F1 / GM	.927 / .933	.941 / .947	.929 / .934	.960 / .963	.950 / .958	.905 / .915	.859 / .870	.888 / .897	.975 / .976	.955 / .958	.922 / .927
	AUROC / AUPRC	.957 / .905	.972 / .965	.999 / .994	.988 / .984	.967 / .949	.965 / .943	.964 / .936	.996 / .977	1.00 / 1.00	1.00 / 1.00	.997 / .989
RSLs	F1 / GM	.835 / .851	.888 / .899	.896 / .905	.940 / .944	.930 / .939	.857 / .873	.877 / .891	.887 / .896	.989 / .989	.951 / .955	.872 / .885
	AUROC / AUPRC	.872 / .780	.999 / .994	1.00 / 1.00	.985 / .959	.950 / .925	.964 / .938	.963 / .935	.996 / .977	1.00 / 1.00	1.00 / 1.00	.994 / .978
TOP+V	F1 / GM	.932 / .937	.960 / .963	.966 / .968	.975 / .976	.950 / .958	.908 / .918	.890 / .902	.898 / .906	.989 / .989	.986 / .987	.916 / .922
	AUROC / AUPRC	.973 / .900	.996 / .968	1.00 / 1.00	1.00 / 1.00	.967 / .949	.964 / .929	.962 / .924	.996 / .977	1.00 / 1.00	1.00 / 1.00	.992 / .947
TOP+ROSE	F1 / GM	.916 / .923	.949 / .952	.946 / .950	.975 / .976	.939 / .947	.919 / .929	.906 / .918	.903 / .910	.989 / .989	.969 / .971	.955 / .958
	AUROC / AUPRC	.962 / .878	.983 / .962	.999 / .994	.988 / .984	.964 / .929	.967 / .949	.964 / .938	.996 / .977	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00
TOP+SMOTE	F1 / GM	.963 / .965	.963 / .965	.927 / .934	.949 / .952	.930 / .939	.919 / .929	.854 / .869	.923 / .929	.989 / .989	.955 / .958	.921 / .925
	AUROC / AUPRC	.982 / .944	.983 / .962	1.00 / 1.00	.997 / .975	.950 / .925	.967 / .949	.982 / .970	.996 / .977	1.00 / 1.00	.998 / .993	.997 / .987
TOP+RSLs	F1 / GM	.940 / .944	.960 / .963	.927 / .934	.949 / .952	.939 / .947	.919 / .929	.854 / .870	.923 / .929	.989 / .989	.966 / .968	.912 / .915
	AUROC / AUPRC	.956 / .924	.974 / .966	1.00 / 1.00	.997 / .975	.964 / .929	.967 / .949	.958 / .918	.996 / .977	1.00 / 1.00	1.00 / 1.00	.996 / .982
OVUN	F1 / GM	.862 / .872	.901 / .913	.871 / .886	.940 / .944	.930 / .939	.905 / .915	.869 / .886	.907 / .914	.989 / .989	.966 / .968	.873 / .882
	AUROC / AUPRC	.914 / .771	.999 / .994	1.00 / 1.00	.968 / .935	.950 / .925	.965 / .939	.965 / .943	.996 / .977	1.00 / 1.00	1.00 / 1.00	.994 / .974
ROSE	F1 / GM	.870 / .877	.873 / .881	.923 / .929	.920 / .926	.698 / .736	.737 / .768	.757 / .784	.813 / .831	.860 / .871	.923 / .929	.896 / .900
	AUROC / AUPRC	.955 / .756	.997 / .989	1.00 / 1.00	1.00 / 1.00	.903 / .557	.960 / .768	.973 / .862	.995 / .965	1.00 / 1.00	.999 / .994	.993 / .972
DBSM*	F1 / GM	.913 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----
	AUROC / AUPRC	.933 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----

	Metrics	new-thyroid2										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.848 / .854	.847 / .852	.844 / .853	.909 / .912	.910 / .920	.876 / .889	.820 / .837	.927 / .933	.969 / .971	.916 / .926	.913 / .917
	AUROC / AUPRC	.929 / .847	.968 / .889	.993 / .966	.964 / .938	.949 / .888	.995 / .975	.994 / .977	.996 / .971	1.00 / 1.00	.993 / .966	.990 / .949
ROS	F1 / GM	.852 / .866	.849 / .863	.866 / .872	.909 / .912	.910 / .920	.914 / .922	.883 / .893	.875 / .888	.975 / .976	.916 / .926	.891 / .901
	AUROC / AUPRC	.914 / .814	.945 / .863	.990 / .962	.964 / .938	.949 / .888	.992 / .946	.994 / .952	.996 / .971	1.00 / 1.00	.996 / .977	.994 / .968
SMOTE	F1 / GM	.863 / .877	.863 / .877	.905 / .907	.909 / .912	.925 / .934	.896 / .900	.891 / .898	.878 / .891	.975 / .976	.925 / .934	.911 / .919
	AUROC / AUPRC	.920 / .836	.942 / .854	.984 / .925	.964 / .938	.961 / .904	.990 / .930	.991 / .946	.996 / .971	1.00 / 1.00	.997 / .988	.988 / .945
RSLs	F1 / GM	.840 / .845	.882 / .897	.902 / .904	.909 / .912	.910 / .920	.882 / .887	.822 / .833	.913 / .920	.989 / .989	.930 / .939	.907 / .911
	AUROC / AUPRC	.875 / .777	.995 / .978	.988 / .931	.964 / .938	.949 / .888	.992 / .954	.992 / .958	.996 / .971	1.00 / 1.00	.996 / .977	.992 / .960
TOP+V	F1 / GM	.902 / .906	.941 / .944	.920 / .922	.943 / .947	.910 / .920	.910 / .920	.865 / .878	.927 / .933	.989 / .989	.989 / .989	.944 / .946
	AUROC / AUPRC	.964 / .840	.999 / .997	.991 / .943	1.00 / 1.00	.949 / .888	.995 / .975	.997 / .986	.996 / .971	1.00 / 1.00	1.00 / 1.00	.990 / .949
TOP+	F1 / GM	.871 / .886	.897 / .910	.907 / .907	.929 / .930	.925 / .934	.921 / .924	.910 / .917	.927 / .933	.989 / .989	.939 / .947	.941 / .943
ROSE	AUROC / AUPRC	.927 / .833	.991 / .961	.991 / .956	.981 / .962	.961 / .904	.993 / .945	.997 / .983	.997 / .987	1.00 / 1.00	.996 / .977	.993 / .966
TOP+	F1 / GM	.886 / .900	.897 / .910	.913 / .915	.958 / .962	.963 / .965	.901 / .907	.867 / .875	.927 / .933	.989 / .989	.939 / .947	.933 / .935
SMOTE	AUROC / AUPRC	.930 / .858	.991 / .961	.991 / .956	.996 / .977	.992 / .935	.992 / .935	.986 / .952	.996 / .971	1.00 / 1.00	.998 / .990	.990 / .949
TOP+	F1 / GM	.886 / .900	.897 / .910	.913 / .915	.958 / .962	.960 / .963	.926 / .931	.867 / .875	.927 / .933	.989 / .989	.939 / .947	.933 / .935
RSLs	AUROC / AUPRC	.930 / .858	.991 / .961	.991 / .956	.996 / .977	.992 / .930	.992 / .930	.986 / .952	.996 / .971	1.00 / 1.00	.996 / .977	.990 / .949
OVUN	F1 / GM	.836 / .857	.843 / .858	.867 / .870	.909 / .912	.910 / .920	.895 / .899	.887 / .899	.902 / .911	.975 / .976	.919 / .929	.867 / .874
	AUROC / AUPRC	.903 / .782	.948 / .857	.988 / .931	.981 / .962	.949 / .888	.990 / .944	.994 / .973	.996 / .971	1.00 / 1.00	.990 / .961	.988 / .953
ROSE	F1 / GM	.838 / .845	.801 / .823	.897 / .899	.900 / .902	.696 / .722	.743 / .767	.771 / .794	.847 / .863	.850 / .865	.866 / .873	.876 / .882
	AUROC / AUPRC	.937 / .745	.986 / .943	.989 / .933	.993 / .966	.894 / .548	.974 / .863	.981 / .893	.994 / .974	1.00 / 1.00	.990 / .955	.993 / .966
DBSM*	F1 / GM	.951 / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----
	AUROC / AUPRC	.974 / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----

	Metrics	page-blocks-1-3 vs 4										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.769 / .784	.811 / .822	.602 / .619	.594 / .620	.667 / .688	.618 / .642	.611 / .636	.468 / .485	.802 / .823	.860 / .870	.739 / .763
	AUROC / AUPRC	.955 / .659	.989 / .928	.991 / .864	.976 / .715	.905 / .514	.960 / .681	.975 / .776	.931 / .598	.983 / .835	.996 / .949	.987 / .858
ROS	F1 / GM	.967 / .971	.910 / .915	.967 / .971	.627 / .677	.798 / .811	.701 / .733	.612 / .659	.575 / .599	.867 / .880	.950 / .958	.907 / .916
	AUROC / AUPRC	.998 / .950	.996 / .935	1.00 / 1.00	.920 / .526	.903 / .709	.957 / .774	.957 / .773	.948 / .658	.997 / .947	1.00 / 1.00	.997 / .979
SMOTE	F1 / GM	.967 / .971	.932 / .939	.967 / .971	.549 / .596	.867 / .873	.778 / .801	.686 / .725	.675 / .701	.932 / .939	.917 / .928	.907 / .916
	AUROC / AUPRC	.998 / .950	.998 / .950	1.00 / 1.00	.821 / .459	.993 / .793	.993 / .837	.992 / .820	.948 / .689	.992 / .951	1.00 / 1.00	1.00 / 1.00
RSLs	F1 / GM	.967 / .971	.967 / .971	.553 / .583	.645 / .666	.798 / .811	.754 / .770	.666 / .672	.496 / .514	.799 / .806	.933 / .941	.797 / .806
	AUROC / AUPRC	.998 / .950	.998 / .950	.988 / .901	.930 / .732	.903 / .709	.957 / .831	.947 / .755	.947 / .664	.996 / .928	1.00 / 1.00	.996 / .931
TOP+V	F1 / GM	.967 / .971	.986 / .987	.834 / .845	.745 / .751	.837 / .850	.786 / .801	.725 / .752	.518 / .542	.932 / .935	1.00 / 1.00	.921 / .923
	AUROC / AUPRC	.998 / .950	.999 / .975	.993 / .914	.977 / .850	.957 / .754	.960 / .853	.965 / .771	.949 / .628	.997 / .958	1.00 / 1.00	.998 / .970
TOP+ ROSE	F1 / GM	.967 / .971	.967 / .971	.967 / .971	.713 / .727	.812 / .830	.786 / .801	.730 / .742	.559 / .582	.907 / .916	1.00 / 1.00	.936 / .937
	AUROC / AUPRC	.998 / .950	.998 / .950	1.00 / 1.00	.915 / .602	.941 / .729	.959 / .852	.955 / .820	.947 / .711	.997 / .938	1.00 / 1.00	.998 / .970
TOP+ SMOTE	F1 / GM	.967 / .971	.967 / .971	.967 / .971	.713 / .727	.856 / .864	.786 / .801	.728 / .739	.496 / .514	.881 / .887	.967 / .971	.936 / .937
	AUROC / AUPRC	.998 / .950	.998 / .950	1.00 / 1.00	.915 / .602	.952 / .778	.959 / .852	.954 / .801	.945 / .598	.997 / .967	1.00 / 1.00	.998 / .970
TOP+ RSLs	F1 / GM	.967 / .971	.967 / .971	.967 / .971	.713 / .727	.819 / .826	.786 / .801	.728 / .739	.496 / .514	.907 / .916	.980 / .982	.936 / .937
	AUROC / AUPRC	.998 / .950	.998 / .950	1.00 / 1.00	.915 / .602	.918 / .728	.959 / .852	.954 / .801	.945 / .598	.997 / .938	.999 / .990	.998 / .970
OVUN	F1 / GM	.908 / .919	.967 / .971	.540 / .569	.583 / .616	.798 / .811	.764 / .783	.666 / .672	.496 / .514	.865 / .878	.919 / .928	.917 / .917
	AUROC / AUPRC	.990 / .875	.998 / .950	.992 / .916	.947 / .785	.903 / .709	.958 / .825	.945 / .748	.943 / .643	.994 / .907	.999 / .990	.997 / .951
ROSE	F1 / GM	.318 / .428	.328 / .426	.401 / .490	.544 / .584	.528 / .544	.418 / .429	.441 / .455	.573 / .609	.423 / .516	.438 / .516	.690 / .725
	AUROC / AUPRC	.847 / .192	.925 / .526	.943 / .670	.960 / .640	.753 / .405	.746 / .456	.742 / .455	.956 / .699	.954 / .555	.977 / .731	.984 / .832
DBSM*	F1 / GM	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----
	AUROC / AUPRC	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----

	Metrics	pima										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.578 / .601	.568 / .600	.559 / .593	.636 / .651	.515 / .545	.513 / .543	.519 / .547	.606 / .621	.503 / .530	.569 / .600	.619 / .644
	AUROC / AUPRC	.627 / .434	.685 / .515	.687 / .570	.775 / .635	.566 / .388	.592 / .412	.596 / .418	.713 / .524	.581 / .439	.692 / .515	.755 / .629
ROS	F1 / GM	.634 / .637	.588 / .593	.680 / .685	.661 / .663	.543 / .544	.557 / .563	.573 / .579	.652 / .654	.560 / .564	.645 / .648	.654 / .658
	AUROC / AUPRC	.712 / .549	.801 / .659	.828 / .694	.834 / .729	.652 / .494	.684 / .523	.707 / .550	.814 / .676	.702 / .533	.820 / .695	.827 / .704
SMOTE	F1 / GM	.599 / .607	.643 / .647	.633 / .637	.637 / .644	.545 / .546	.530 / .531	.546 / .550	.623 / .627	.536 / .538	.641 / .643	.634 / .637
	AUROC / AUPRC	.715 / .567	.817 / .691	.832 / .734	.833 / .731	.651 / .487	.704 / .563	.734 / .624	.816 / .677	.695 / .545	.819 / .691	.830 / .723
RSLs	F1 / GM	.600 / .608	.643 / .647	.621 / .626	.637 / .644	.545 / .546	.530 / .531	.546 / .550	.623 / .627	.476 / .481	.632 / .636	.631 / .634
	AUROC / AUPRC	.725 / .595	.817 / .691	.826 / .723	.833 / .731	.651 / .487	.704 / .563	.734 / .624	.816 / .677	.688 / .511	.825 / .721	.831 / .724
TOP+V	F1 / GM	.672 / .675	.670 / .674	.670 / .672	.674 / .677	.578 / .587	.584 / .589	.601 / .605	.660 / .665	.583 / .586	.670 / .674	.664 / .668
	AUROC / AUPRC	.753 / .583	.821 / .697	.833 / .714	.817 / .691	.656 / .470	.704 / .520	.728 / .542	.778 / .612	.692 / .491	.821 / .694	.822 / .718
TOP+ ROSE	F1 / GM	.656 / .658	.669 / .670	.686 / .695	.672 / .686	.593 / .597	.594 / .603	.621 / .631	.656 / .658	.579 / .590	.661 / .669	.665 / .674
	AUROC / AUPRC	.747 / .604	.816 / .702	.837 / .728	.832 / .724	.678 / .498	.712 / .536	.747 / .573	.816 / .682	.694 / .508	.800 / .653	.829 / .710
TOP+ SMOTE	F1 / GM	.658 / .658	.653 / .662	.684 / .694	.668 / .677	.592 / .597	.593 / .603	.619 / .630	.660 / .663	.579 / .584	.670 / .675	.677 / .688
	AUROC / AUPRC	.741 / .585	.787 / .634	.828 / .708	.833 / .730	.675 / .497	.710 / .534	.743 / .569	.815 / .681	.703 / .537	.815 / .694	.830 / .709
TOP+ RSLs	F1 / GM	.658 / .658	.655 / .664	.686 / .696	.670 / .674	.593 / .597	.594 / .603	.621 / .631	.656 / .659	.579 / .598	.666 / .669	.666 / .677
	AUROC / AUPRC	.741 / .585	.788 / .639	.830 / .713	.823 / .706	.676 / .497	.712 / .536	.746 / .572	.815 / .682	.687 / .508	.810 / .672	.829 / .713
OVUN	F1 / GM	.620 / .622	.634 / .638	.660 / .661	.665 / .666	.559 / .560	.563 / .564	.576 / .578	.626 / .629	.533 / .535	.641 / .644	.655 / .657
	AUROC / AUPRC	.732 / .571	.814 / .704	.818 / .706	.829 / .722	.656 / .486	.705 / .547	.733 / .594	.801 / .661	.680 / .496	.812 / .698	.826 / .711
ROSE	F1 / GM	.611 / .619	.627 / .630	.642 / .644	.640 / .642	.559 / .561	.564 / .566	.569 / .570	.627 / .629	.476 / .482	.642 / .645	.629 / .632
	AUROC / AUPRC	.744 / .582	.792 / .674	.812 / .697	.829 / .715	.655 / .486	.705 / .545	.727 / .578	.802 / .663	.605 / .453	.807 / .685	.815 / .707
DBSM*	F1 / GM	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----
	AUROC / AUPRC	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----

	Metrics	vehicle1										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.405 / .441	.522 / .530	.440 / .471	.587 / .591	.423 / .424	.438 / .441	.454 / .457	.513 / .523	.528 / .533	.501 / .507	.464 / .487
	AUROC / AUPRC	.647 / .451	.854 / .651	.822 / .627	.875 / .695	.613 / .358	.704 / .427	.757 / .498	.709 / .532	.837 / .622	.850 / .645	.845 / .652
ROS	F1 / GM	.492 / .494	.580 / .584	.619 / .632	.664 / .676	.415 / .417	.501 / .515	.514 / .534	.517 / .537	.597 / .615	.595 / .596	.627 / .646
	AUROC / AUPRC	.653 / .379	.857 / .661	.847 / .625	.875 / .688	.609 / .356	.692 / .399	.721 / .416	.709 / .529	.829 / .606	.865 / .644	.864 / .658
SMOTE	F1 / GM	.561 / .565	.609 / .613	.586 / .589	.644 / .648	.437 / .439	.505 / .513	.522 / .533	.520 / .536	.601 / .608	.561 / .564	.605 / .610
	AUROC / AUPRC	.708 / .454	.876 / .674	.847 / .631	.874 / .692	.619 / .357	.719 / .421	.749 / .450	.709 / .532	.827 / .581	.861 / .654	.856 / .639
RSLs	F1 / GM	.605 / .610	.596 / .599	.589 / .591	.660 / .664	.436 / .438	.498 / .503	.510 / .518	.514 / .528	.622 / .625	.547 / .549	.596 / .599
	AUROC / AUPRC	.762 / .527	.863 / .657	.844 / .634	.875 / .694	.620 / .360	.722 / .423	.747 / .438	.705 / .532	.842 / .617	.860 / .650	.857 / .649
TOP+V	F1 / GM	.599 / .605	.619 / .633	.582 / .587	.639 / .653	.551 / .567	.554 / .582	.540 / .556	.513 / .523	.624 / .634	.624 / .634	.580 / .587
	AUROC / AUPRC	.760 / .502	.841 / .610	.808 / .589	.856 / .653	.706 / .415	.740 / .424	.761 / .452	.709 / .532	.838 / .570	.844 / .586	.816 / .576
TOP+ ROSE	F1 / GM	.560 / .589	.640 / .649	.589 / .606	.653 / .664	.527 / .558	.542 / .596	.536 / .549	.532 / .551	.642 / .648	.642 / .652	.631 / .665
	AUROC / AUPRC	.717 / .404	.854 / .602	.815 / .565	.864 / .653	.685 / .380	.739 / .422	.756 / .447	.729 / .535	.834 / .606	.845 / .592	.844 / .606
TOP+ SMOTE	F1 / GM	.567 / .617	.619 / .629	.553 / .555	.637 / .646	.535 / .585	.534 / .542	.536 / .549	.517 / .530	.640 / .645	.612 / .630	.651 / .664
	AUROC / AUPRC	.749 / .437	.856 / .611	.804 / .560	.866 / .667	.696 / .374	.734 / .432	.755 / .447	.710 / .544	.858 / .655	.842 / .604	.877 / .645
TOP+ RSLs	F1 / GM	.576 / .614	.619 / .629	.540 / .549	.637 / .646	.540 / .582	.538 / .581	.536 / .549	.517 / .530	.613 / .620	.620 / .628	.659 / .675
	AUROC / AUPRC	.752 / .428	.856 / .611	.799 / .550	.866 / .665	.700 / .384	.760 / .370	.755 / .447	.710 / .544	.841 / .620	.847 / .592	.871 / .634
OVUN	F1 / GM	.452 / .478	.576 / .582	.501 / .519	.592 / .595	.428 / .429	.462 / .466	.484 / .487	.510 / .522	.605 / .608	.551 / .560	.513 / .525
	AUROC / AUPRC	.654 / .433	.863 / .664	.826 / .612	.876 / .701	.616 / .360	.716 / .447	.761 / .511	.710 / .537	.851 / .659	.863 / .656	.850 / .640
ROSE	F1 / GM	.492 / .534	.565 / .596	.589 / .605	.529 / .544	.426 / .448	.468 / .486	.500 / .519	.509 / .536	.518 / .535	.573 / .592	.559 / .575
	AUROC / AUPRC	.721 / .428	.784 / .538	.799 / .575	.757 / .530	.589 / .311	.651 / .373	.680 / .405	.707 / .512	.725 / .450	.798 / .561	.786 / .548
DBSM*	F1 / GM	.581 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----
	AUROC / AUPRC	.730 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----

	Metrics	vehicle2										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.922 / .923	.963 / .963	.936 / .937	.941 / .941	.854 / .856	.839 / .840	.815 / .819	.593 / .598	.964 / .964	.977 / .977	.936 / .938
	AUROC / AUPRC	.946 / .878	.998 / .994	.991 / .980	.992 / .982	.907 / .789	.952 / .892	.958 / .911	.854 / .673	.991 / .980	.998 / .996	.993 / .983
ROS	F1 / GM	.940 / .941	.973 / .973	.888 / .891	.935 / .936	.850 / .852	.815 / .822	.790 / .799	.651 / .658	.908 / .909	.981 / .982	.949 / .949
	AUROC / AUPRC	.964 / .893	.999 / .996	.988 / .966	.991 / .979	.903 / .786	.943 / .833	.949 / .859	.867 / .699	.981 / .946	.999 / .997	.995 / .987
SMOTE	F1 / GM	.922 / .923	.975 / .975	.894 / .895	.938 / .939	.860 / .862	.845 / .849	.825 / .829	.632 / .636	.952 / .953	.968 / .968	.950 / .950
	AUROC / AUPRC	.942 / .872	.999 / .997	.984 / .958	.992 / .981	.918 / .786	.956 / .891	.960 / .894	.850 / .683	.994 / .984	.999 / .997	.995 / .986
RSLs	F1 / GM	.941 / .942	.966 / .966	.892 / .894	.942 / .942	.857 / .859	.845 / .847	.828 / .830	.621 / .626	.937 / .938	.966 / .966	.956 / .957
	AUROC / AUPRC	.962 / .903	.998 / .996	.984 / .952	.992 / .981	.913 / .785	.958 / .894	.960 / .896	.851 / .696	.982 / .955	.999 / .998	.995 / .985
TOP+V	F1 / GM	.938 / .939	.979 / .980	.940 / .941	.948 / .948	.854 / .856	.841 / .843	.815 / .819	.699 / .700	.964 / .964	.981 / .982	.944 / .945
	AUROC / AUPRC	.970 / .898	.998 / .995	.991 / .981	.992 / .981	.907 / .789	.955 / .895	.958 / .911	.870 / .753	.991 / .980	.999 / .996	.992 / .981
TOP+ROSE	F1 / GM	.935 / .935	.977 / .977	.936 / .937	.941 / .942	.854 / .856	.852 / .853	.838 / .840	.595 / .601	.964 / .964	.977 / .977	.942 / .942
	AUROC / AUPRC	.962 / .900	.999 / .997	.991 / .983	.992 / .981	.907 / .789	.955 / .898	.962 / .920	.795 / .627	.991 / .980	.999 / .997	.994 / .983
TOP+SMOTE	F1 / GM	.939 / .939	.977 / .977	.937 / .938	.943 / .944	.854 / .856	.842 / .843	.815 / .819	.593 / .598	.943 / .944	.979 / .979	.955 / .956
	AUROC / AUPRC	.963 / .923	.999 / .997	.991 / .980	.992 / .981	.907 / .789	.953 / .893	.958 / .911	.854 / .673	.988 / .966	.999 / .997	.995 / .988
TOP+RSLs	F1 / GM	.932 / .933	.977 / .977	.937 / .938	.943 / .944	.857 / .860	.845 / .848	.815 / .819	.593 / .598	.964 / .964	.977 / .977	.952 / .954
	AUROC / AUPRC	.953 / .888	.998 / .996	.991 / .980	.992 / .981	.915 / .786	.955 / .873	.958 / .911	.854 / .673	.991 / .980	.999 / .997	.995 / .988
OVUN	F1 / GM	.923 / .925	.960 / .961	.868 / .873	.924 / .925	.768 / .782	.695 / .724	.640 / .679	.262 / .266	.892 / .894	.964 / .964	.949 / .950
	AUROC / AUPRC	.967 / .895	.997 / .993	.979 / .933	.989 / .974	.880 / .639	.960 / .691	.900 / .690	.541 / .390	.966 / .922	.998 / .994	.995 / .987
ROSE	F1 / GM	.746 / .762	.784 / .795	.847 / .851	.799 / .807	.567 / .586	.577 / .595	.546 / .556	.634 / .645	.656 / .677	.847 / .853	.836 / .844
	AUROC / AUPRC	.891 / .702	.962 / .908	.978 / .945	.937 / .801	.719 / .427	.781 / .574	.790 / .599	.853 / .697	.890 / .708	.980 / .951	.981 / .954
DBSM*	F1 / GM	.919 / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----
	AUROC / AUPRC	.948 / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----

	Metrics	wisconsin										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.945 / .946	.954 / .955	.952 / .953	.954 / .954	.942 / .943	.956 / .956	.960 / .960	.945 / .946	.947 / .948	.963 / .963	.942 / .943
	AUROC / AUPRC	.959 / .949	.995 / .990	.991 / .979	.994 / .989	.955 / .930	.986 / .962	.992 / .979	.985 / .950	.992 / .983	.994 / .987	.987 / .964
ROS	F1 / GM	.943 / .944	.954 / .955	.946 / .947	.956 / .956	.938 / .938	.957 / .957	.958 / .959	.948 / .948	.947 / .947	.953 / .953	.946 / .947
	AUROC / AUPRC	.952 / .933	.994 / .990	.989 / .974	.995 / .991	.952 / .930	.983 / .958	.987 / .960	.985 / .950	.993 / .984	.991 / .981	.987 / .956
SMOTE	F1 / GM	.945 / .945	.954 / .955	.948 / .948	.954 / .954	.942 / .943	.956 / .956	.960 / .960	.945 / .946	.948 / .949	.959 / .959	.942 / .943
	AUROC / AUPRC	.962 / .951	.995 / .990	.990 / .977	.994 / .989	.955 / .930	.986 / .962	.992 / .979	.985 / .950	.991 / .980	.990 / .980	.988 / .964
RSLs	F1 / GM	.931 / .932	.950 / .950	.946 / .947	.961 / .961	.947 / .947	.963 / .963	.963 / .963	.948 / .948	.954 / .954	.961 / .961	.950 / .951
	AUROC / AUPRC	.953 / .907	.993 / .983	.989 / .971	.995 / .989	.960 / .932	.986 / .957	.987 / .961	.985 / .950	.992 / .983	.992 / .980	.988 / .960
TOP+V	F1 / GM	.951 / .951	.957 / .957	.960 / .960	.961 / .961	.945 / .945	.958 / .958	.962 / .962	.952 / .953	.954 / .954	.965 / .965	.945 / .946
	AUROC / AUPRC	.967 / .916	.992 / .988	.988 / .967	.995 / .990	.957 / .932	.986 / .962	.992 / .980	.988 / .960	.993 / .983	.993 / .986	.988 / .966
TOP+ ROSE	F1 / GM	.945 / .946	.963 / .964	.959 / .959	.959 / .960	.962 / .963	.964 / .964	.964 / .964	.950 / .951	.963 / .964	.965 / .965	.948 / .949
	AUROC / AUPRC	.959 / .949	.993 / .982	.991 / .978	.994 / .988	.979 / .933	.980 / .943	.986 / .957	.985 / .951	.993 / .982	.994 / .988	.983 / .936
TOP+ SMOTE	F1 / GM	.945 / .946	.956 / .956	.953 / .953	.956 / .956	.957 / .957	.962 / .963	.962 / .962	.958 / .958	.953 / .954	.963 / .963	.951 / .952
	AUROC / AUPRC	.959 / .949	.993 / .983	.990 / .978	.995 / .989	.970 / .930	.980 / .937	.990 / .971	.992 / .979	.992 / .982	.993 / .985	.977 / .913
TOP+ RSLs	F1 / GM	.945 / .946	.958 / .958	.953 / .953	.956 / .956	.958 / .959	.966 / .966	.962 / .962	.958 / .958	.955 / .956	.965 / .965	.953 / .954
	AUROC / AUPRC	.959 / .949	.989 / .962	.990 / .978	.995 / .989	.975 / .922	.981 / .940	.990 / .971	.992 / .979	.991 / .977	.994 / .988	.981 / .924
OVUN	F1 / GM	.932 / .933	.961 / .962	.953 / .954	.959 / .959	.943 / .943	.955 / .955	.957 / .958	.944 / .944	.942 / .943	.953 / .954	.944 / .945
	AUROC / AUPRC	.950 / .911	.993 / .988	.989 / .970	.995 / .989	.955 / .925	.982 / .950	.988 / .967	.987 / .960	.991 / .981	.992 / .980	.987 / .955
ROSE	F1 / GM	.936 / .936	.943 / .943	.957 / .958	.954 / .954	.929 / .930	.949 / .950	.945 / .945	.942 / .942	.950 / .950	.951 / .952	.945 / .946
	AUROC / AUPRC	.952 / .913	.990 / .974	.991 / .977	.995 / .989	.943 / .913	.978 / .952	.985 / .968	.988 / .964	.992 / .985	.989 / .969	.989 / .961
DBSM*	F1 / GM	.931 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----
	AUROC / AUPRC	.952 / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----	----- / -----

	Metrics	yeast1										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.504 / .510	.551 / .556	.533 / .547	.446 / .470	.492 / .493	.535 / .539	.499 / .505	.496 / .569	.521 / .536	.553 / .559	.471 / .495
	AUROC / AUPRC	.734 / .497	.788 / .595	.783 / .615	.791 / .595	.643 / .426	.737 / .530	.757 / .556	.762 / .533	.804 / .620	.799 / .629	.781 / .612
ROS	F1 / GM	.528 / .530	.563 / .567	.597 / .605	.582 / .591	.490 / .492	.569 / .578	.562 / .571	.486 / .562	.597 / .610	.563 / .564	.584 / .592
	AUROC / AUPRC	.645 / .433	.775 / .602	.794 / .616	.790 / .596	.642 / .429	.726 / .491	.751 / .529	.758 / .528	.805 / .623	.798 / .628	.785 / .579
SMOTE	F1 / GM	.595 / .598	.596 / .602	.608 / .610	.584 / .587	.505 / .505	.589 / .595	.573 / .578	.490 / .565	.612 / .616	.615 / .616	.580 / .583
	AUROC / AUPRC	.734 / .502	.791 / .586	.789 / .605	.791 / .598	.650 / .423	.738 / .516	.754 / .527	.760 / .532	.806 / .623	.807 / .636	.789 / .594
RSLs	F1 / GM	.571 / .574	.581 / .584	.612 / .614	.579 / .581	.509 / .510	.562 / .566	.546 / .549	.493 / .567	.603 / .605	.589 / .590	.584 / .585
	AUROC / AUPRC	.716 / .481	.780 / .585	.798 / .623	.790 / .596	.653 / .432	.731 / .501	.751 / .533	.760 / .534	.807 / .619	.799 / .620	.791 / .600
TOP+V	F1 / GM	.585 / .598	.595 / .610	.601 / .605	.591 / .603	.539 / .579	.564 / .581	.560 / .588	.496 / .569	.600 / .616	.592 / .598	.586 / .589
	AUROC / AUPRC	.741 / .478	.778 / .568	.782 / .610	.781 / .585	.659 / .386	.731 / .497	.702 / .418	.762 / .533	.789 / .605	.784 / .577	.763 / .584
TOP+ ROSE	F1 / GM	.573 / .575	.605 / .606	.606 / .609	.592 / .595	.520 / .560	.566 / .578	.554 / .558	.503 / .574	.605 / .608	.592 / .593	.591 / .594
	AUROC / AUPRC	.726 / .500	.798 / .613	.799 / .619	.792 / .598	.638 / .372	.731 / .503	.753 / .536	.760 / .507	.805 / .624	.792 / .617	.788 / .598
TOP+ SMOTE	F1 / GM	.579 / .580	.586 / .588	.593 / .594	.559 / .591	.539 / .549	.561 / .581	.559 / .582	.496 / .569	.597 / .598	.592 / .598	.583 / .585
	AUROC / AUPRC	.718 / .487	.794 / .610	.794 / .603	.748 / .522	.669 / .420	.717 / .464	.729 / .469	.762 / .533	.805 / .618	.794 / .603	.789 / .603
TOP+ RSLs	F1 / GM	.579 / .580	.587 / .599	.593 / .594	.559 / .591	.536 / .540	.561 / .577	.567 / .583	.496 / .569	.598 / .599	.598 / .601	.583 / .585
	AUROC / AUPRC	.718 / .487	.777 / .577	.794 / .603	.748 / .522	.668 / .432	.721 / .472	.737 / .490	.762 / .533	.805 / .618	.793 / .608	.789 / .603
OVUN	F1 / GM	.501 / .574	.495 / .569	.475 / .554	.476 / .555	.500 / .570	.492 / .568	.487 / .565	.457 / .540	.482 / .560	.508 / .577	.511 / .577
	AUROC / AUPRC	.614 / .337	.683 / .406	.646 / .370	.724 / .496	.597 / .337	.603 / .340	.606 / .342	.645 / .381	.690 / .424	.665 / .386	.646 / .376
ROSE	F1 / GM	.452 / .540	.452 / .540	.452 / .540	.583 / .592	.524 / .546	.555 / .577	.568 / .590	.464 / .547	.584 / .612	.453 / .541	.575 / .597
	AUROC / AUPRC	.507 / .292	.507 / .292	.507 / .292	.786 / .589	.651 / .391	.716 / .453	.743 / .492	.759 / .535	.794 / .610	.715 / .439	.783 / .594
DBSM*	F1 / GM	.573 / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----
	AUROC / AUPRC	.698 / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----

	Metrics	yeast3										
		C4.5	C5.0	XGB	LR	1-NN	3-NN	5-NN	NB	NN	RF	SVM
BASE	F1 / GM	.768 / .772	.759 / .763	.765 / .770	.738 / .742	.649 / .656	.696 / .700	.749 / .753	.429 / .518	.697 / .705	.746 / .750	.749 / .755
	AUROC / AUPRC	.934 / .704	.971 / .804	.968 / .848	.962 / .794	.801 / .515	.887 / .689	.929 / .757	.953 / .671	.972 / .819	.961 / .826	.973 / .840
ROS	F1 / GM	.700 / .703	.776 / .780	.773 / .784	.655 / .676	.649 / .656	.664 / .678	.647 / .676	.301 / .419	.752 / .767	.784 / .787	.727 / .739
	AUROC / AUPRC	.854 / .539	.970 / .797	.974 / .828	.962 / .796	.801 / .515	.880 / .597	.919 / .639	.952 / .670	.976 / .838	.968 / .819	.969 / .809
SMOTE	F1 / GM	.766 / .772	.759 / .764	.781 / .789	.676 / .693	.659 / .664	.674 / .683	.686 / .698	.361 / .464	.753 / .764	.779 / .783	.737 / .745
	AUROC / AUPRC	.918 / .641	.970 / .794	.968 / .825	.963 / .795	.826 / .510	.906 / .608	.938 / .676	.945 / .659	.975 / .831	.969 / .811	.969 / .802
RSLs	F1 / GM	.765 / .770	.776 / .778	.784 / .787	.756 / .758	.651 / .658	.722 / .724	.752 / .755	.447 / .530	.785 / .787	.755 / .759	.769 / .773
	AUROC / AUPRC	.899 / .683	.968 / .816	.963 / .842	.963 / .796	.803 / .514	.892 / .705	.931 / .756	.947 / .665	.976 / .835	.967 / .829	.973 / .829
TOP+V	F1 / GM	.798 / .801	.784 / .791	.808 / .813	.769 / .771	.671 / .677	.739 / .741	.756 / .758	.429 / .518	.813 / .815	.783 / .788	.796 / .799
	AUROC / AUPRC	.918 / .668	.971 / .821	.970 / .832	.961 / .796	.832 / .525	.910 / .706	.930 / .741	.953 / .671	.968 / .807	.973 / .833	.967 / .817
TOP+ ROSE	F1 / GM	.786 / .790	.777 / .781	.796 / .799	.775 / .776	.671 / .677	.702 / .705	.749 / .753	.431 / .521	.788 / .789	.780 / .783	.790 / .793
	AUROC / AUPRC	.932 / .681	.964 / .804	.969 / .851	.962 / .797	.845 / .520	.901 / .665	.929 / .757	.937 / .499	.973 / .815	.971 / .830	.974 / .835
TOP+ SMOTE	F1 / GM	.786 / .790	.776 / .779	.799 / .804	.764 / .765	.671 / .677	.702 / .705	.749 / .753	.429 / .518	.775 / .776	.785 / .789	.786 / .787
	AUROC / AUPRC	.932 / .681	.969 / .807	.968 / .839	.961 / .798	.845 / .520	.901 / .665	.929 / .757	.953 / .671	.973 / .820	.974 / .844	.973 / .836
TOP+ RSLs	F1 / GM	.786 / .790	.776 / .779	.800 / .805	.764 / .765	.671 / .677	.702 / .705	.749 / .753	.429 / .518	.775 / .776	.790 / .796	.786 / .787
	AUROC / AUPRC	.932 / .681	.969 / .807	.968 / .824	.961 / .798	.845 / .520	.901 / .665	.929 / .757	.953 / .671	.973 / .819	.963 / .773	.973 / .836
OVUN	F1 / GM	.691 / .713	.730 / .745	.728 / .750	.599 / .643	.642 / .661	.618 / .653	.584 / .628	.320 / .428	.649 / .687	.732 / .745	.668 / .689
	AUROC / AUPRC	.909 / .468	.967 / .763	.968 / .766	.958 / .786	.868 / .475	.920 / .568	.928 / .604	.911 / .619	.972 / .821	.969 / .769	.956 / .774
ROSE	F1 / GM	.225 / .354	.199 / .331	.497 / .571	.658 / .679	.499 / .553	.546 / .597	.553 / .602	.250 / .377	.728 / .745	.212 / .343	.668 / .696
	AUROC / AUPRC	.570 / .153	.767 / .311	.954 / .626	.966 / .793	.837 / .332	.918 / .534	.939 / .638	.950 / .673	.976 / .831	.964 / .731	.971 / .822
DBSM*	F1 / GM	.705 / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----
	AUROC / AUPRC	.875 / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----	---- / ----

*DBSM does not implemented in our experiment.