SMOTEWB-Nearmiss	BBO	DE	SAB	whale	ANT	ZOA	SMOTEWB-SUSD	ВВО	DE	SAB	whale	ANT	ZOA
abalone-21-vs-8	0.9135	0.9109	0.8614	0.9171	0.9083	0.9042	abalone-21-vs-8	0.885	0.885	0.8868	0.8842	0.8784	0.8858
abalone-3-vs-11	1	1	1	1	1	1	abalone-3-vs-11	1	1	1	1	1	1
car-good	0.8809	0.8934	0.9108	0.9053	0.8928	0.9154	car-good	0.9741	0.975	0.9597	0.9429	0.9523	0.9705
dermatology-6	0.9985	0.9985	0.9985	0.9985	0.9985	0.9985	dermatology-6	0.9985	0.9985	0.9985	0.9985	0.9985	0.9985
ecoli1	0.8865	0.8824	0.8912	0.8884	0.9033	0.8856	ecoli1	0.9012	0.9126	0.9103	0.8966	0.8957	0.9101
ecoli2	0.9036	0.9024	0.886	0.9115	0.8953	0.8951	ecoli2	0.9045	0.9138	0.9212	0.9139	0.9123	0.9127
ecoli3	0.8142	0.8358	0.8262	0.8242	0.8242	0.835	ecoli3	0.8992	0.8938	0.8921	0.8921	0.9004	0.8954
flare-F	0.6951	0.6937	0.659	0.6825	0.6822	0.6829	flare-F	0.8463	0.8452	0.8552	0.8414	0.8498	0.8587
glass-0-1-2-3-vs-4-5-6	0.9329	0.9381	0.936	0.9216	0.9345	0.9460	glass-0-1-2-3-vs-4-5-6	0.9464	0.9528	0.9496	0.9432	0.9532	0.9532
glass0	0.8214	0.826	0.8388	0.8462	0.815	0.8347	glass0	0.8408	0.8362	0.8347	0.839	0.829	0.8419
glass1	0.8186	0.8284	0.8285	0.7966	0.8424	0.8403	glass1	0.8014	0.797	0.8004	0.8069	0.7582	0.7868
glass6	0.9506	0.9531	0.9496	0.9449	0.9558	0.9532	glass6	0.937	0.9362	0.933	0.933	0.9341	0.945
haberman	0.6474	0.6448	0.6304	0.6305	0.6517	0.6466	haberman	0.6413	0.6453	0.6495	0.619	0.6349	0.646
kddcup-rootkit	1	1	1	1	1	1	kddcup-rootkit	1	1	1	1	1	1
new-thyroid1	0.9859	0.9859	0.9829	0.9859	0.9806	0.9805	new-thyroid1	0.9832	0.9802	0.9915	0.9888	0.9832	0.9888
pima	0.7211	0.7181	0.698	0.7338	0.7109	0.7205	pima	0.7277	0.7259	0.7433	0.7309	0.7302	0.7215
vehicle0	0.9398	0.9468	0.9338	0.9446	0.9429	0.9408	vehicle0	0.9523	0.9519	0.9455	0.947	0.951	0.9466
winequality-red-8-vs-6	0.814	0.7997	0.752	0.7717	0.808	0.7835	winequality-red-8-vs-6	0.8506	0.8397	0.8491	0.8086	0.7763	0.8167
winequality-white-3-vs-7	0.8072	0.8278	0.771	0.8369	0.8329	0.8260	winequality-white-3-vs-7	0.6635	0.8432	0.7675	0.6983	0.6674	0.7924
wisconsin	0.9568	0.9598	0.952	0.9582	0.9589	0.9556	wisconsin	0.9658	0.965	0.9639	0.9606	0.9647	0.9651
yeast6	0.8161	0.8102	0.7869	0.8181	0.8204	0.8007	yeast6	0.8908	0.8899	0.8897	0.8813	0.8943	0.896
OREM-SUSD	BBO	DE	SAB	whale	ANT	ZOA	OREM-Nearmiss	BBO	DE	SAB	whale	ANT	ZOA
abalone-21-vs-8	0.9109	0.8596	0.8614	0.8464	0.8469	0.9224	abalone-21-vs-8	0.8535	0.8686	0.8605	0.8623	0.8578	0.8797
abalone-3-vs-11	1	1	1	1	1	1	abalone-3-vs-11	1	1	1	1	1	1
car-good	0.8874	0.9235	0.9147	0.9217	0.8844	0.9032	car-good	0.9146	0.9179	0.9117	0.9075	0.9018	0.9124
dermatology-6	0.9985	0.9985	0.9985	0.9985	0.9985	0.9985	dermatology-6	0.9985	0.9985	0.9985	0.9985	0.9985	0.9985
ecoli1	0.8825	0.9018	0.8922	0.895	0.9023	0.8877	ecoli1	0.8972	0.9058	0.8957	0.8957	0.8957	0.8961
ecoli2	0.8953	0.886	0.886	0.8613	0.8909	0.8911	ecoli2	0.8768	0.8803	0.8843	0.8854	0.8701	0.8792
ecoli3	0.775	0.7836	0.7986	0.7936	0.7657	0.7817	ecoli3	0.8324	0.8357	0.8221	0.8407	0.8257	0.85
flare-F	0.628	0.6489	0.6482	0.6331	0.6525	0.6661	flare-F	0.6521	0.6693	0.6591	0.6664	0.6244	0.6606
glass-0-1-2-3-vs-4-5-6	0.9235	0.9428	0.9296	0.9334	0.9423	0.9329	glass-0-1-2-3-vs-4-5-6	0.952	0.9529	0.9523	0.9491	0.9391	0.9562
glass0	0.8248	0.8287	0.8205	0.8381	0.8211	0.8464	glass0	0.8077	0.8358	0.8336	0.829	0.8118	0.816
glass1	0.8089	0.8155	0.7956	0.8073	0.7617	0.8403	glass1	0.7998	0.8192	0.7956	0.7942	0.8202	0.8224
glass6	0.9506	0.9333	0.933	0.9303	0.9504	0.9478	glass6	0.9413	0.9469	0.9413	0.9388	0.9473	0.9551
haberman	0.6395	0.6528	0.6281	0.648	0.6325	0.6489	haberman	0.6416	0.6417	0.6158	0.6099	0.6271	0.6272
kddcup-rootkit	1	1	1	1	1	1	kddcup-rootkit	1	1	1	1	1	1
new-thyroid1	0.9806	0.9802	0.9829	0.9773	0.9793	0.9806	new-thyroid1	0.9829	0.9829	0.9802	0.9829	0.9829	0.9829
pima	0.7198	0.7185	0.7096	0.7032	0.703	0.715	pima	0.7191	0.71	0.7174	0.7056	0.7196	0.7205
vehicle0	0.9434	0.9271	0.9335	0.945	0.9326	0.954	vehicle0	0.9379	0.9325	0.9321	0.9338	0.9327	0.9403
winequality-red-8-vs-6	0.7523	0.8251	0.7644	0.8009	0.7893	0.7812	winequality-red-8-vs-6	0.7941	0.7774	0.7636	0.7957	0.7784	0.794
winequality-white-3-vs-7				0.7238	0.7314	0.7738	winequality-white-3-vs-7	0.7954	0.8	0.8131	0.8215	0.8011	0.8307
wisconsin	0.9597	0.9564	0.9565	0.959	0.9558	0.9599	wisconsin	0.958	0.958	0.9512	0.9569	0.9585	0.9589
yeast6	0.7757	0.7614	0.7720	0.7573	0.7090	0.8095	yeast6	0.8264	0.8264	0.9245	0.0007	0.9277	0.8284

Table GNB 算法下的启发式算法比较

Table GNB 昇法下的后点													
SMOTEWB-Nearmiss		DE	SAB	whale	ANT	ZOA	SMOTEWB-SUSD	BBO	DE	SAB	whale	ANT	ZOA
abalone-21-vs-8	0.9198	0.9207	0.8933	0.9181	0.9163	0.9198	abalone-21-vs-8	0.9198	0.8912	0.8983	0.8921	0.8866	0.8851
abalone-3-vs-11	1	1	1	1	1	1	abalone-3-vs-11	1	1	1	1	1	1
car-good	0.9577	0.9606	0.9593	0.9581	0.9577	0.9599	car-good	0.9587	0.9594	0.9606	0.96		0.9604
dermatology-6	0.9852	0.9852	0.9792	0.9837	0.9852	0.9852	dermatology-6	0.9717	0.9748	0.9748	0.9778	0.9763	0.9748
ecoli1	0.9011	0.9138	0.9149	0.9127	0.9122	0.9150	ecoli1	0.9363	0.9233	0.9306	0.9318	0.9162	0.9251
ecoli2	0.9554	0.9546	0.9593	0.9554	0.9534	0.9559	ecoli2	0.9518	0.9555	0.9577	0.9579	0.9559	0.9585
ecoli3	0.925	0.9242	0.9352	0.9242	0.9236	0.9244	ecoli3	0.9225	0.9257	0.9267	0.9381	0.9265	0.9253
flare-F	0.9051	0.908	0.8922	0.9087	0.9043	0.9071	flare-F	0.8788	0.8879	0.884	0.8849	0.8878	0.8849
glass-0-1-2-3-vs-4-5-6	0.9625	0.9613	0.9565	0.9671	0.96	0.9656	glass-0-1-2-3-vs-4-5-6	0.9701	0.9502	0.9665	0.9714	0.9541	0.9662
glass0	0.8375	0.8402	0.8017	0.8463	0.8379	0.8388	glass0	0.785	0.7968	0.8171	0.8138	0.8086	0.8249
glass1	0.7408	0.7429	0.6995	0.7343	0.7328	0.7386	glass1	0.7072	0.6935	0.6855	0.6987	0.6762	0.687
glass6	0.9688	0.9707	0.9556	0.9643	0.9679	0.9669	glass6	0.9623	0.9545	0.9579	0.9563	0.965	0.9643
haberman	0.7034	0.7028	0.6933	0.7016	0.7007	0.6959	haberman	0.6679	0.674	0.6766	0.6774	0.679	0.6726
kddcup-rootkit	1	1	1	1	1	1	kddcup-rootkit	1	1	1	1	1	1
new-thyroid1	1	1	1	1	1	1	new-thyroid1	1	1	1	1	1	1
pima	0.8212	0.8202	0.8192	0.8221	0.8199	0.8213	pima	0.8193	0.8192	0.8171	0.8106	0.815	0.8148
vehicle0	0.8743	0.9493	0.9448	0.9298	0.947	0.9484	vehicle0	0.8542	0.8163	0.8792	0.8723	0.8267	0.8536
winequality-red-8-vs-6	0.8264	0.8421	0.8038	0.8458	0.8343	0.8459	winequality-red-8-vs-6	0.872	0.848	0.8657	0.8576	0.8636	0.8636
winequality-white-3-vs-7	0.8973	0.9002	0.8869	0.8902	0.8993	0.8970	winequality-white-3-vs-7	0.884	0.8828	0.8845	0.8861	0.8822	0.8955
wisconsin	0.9829	0.983	0.9828	0.9837	0.9829	0.9836	wisconsin	0.9875	0.9915	0.994	0.9938	0.9915	0.9942
yeast6	0.9472	0.9487	0.9511	0.944	0.9514	0.9517	yeast6	0.9264	0.9456	0.9496	0.9422	0.939	0.9434
OREM-SUSD	BBO	DE	SAB	whale	ANT	ZOA	OREM-Nearmiss	BBO	DE	SAB	whale	ANT	ZOA
abalone-21-vs-8	0.9136	0.9104	0.893	0.8939	0.8724	0.9198	abalone-21-vs-8	0.8894	0.8939	0.8945	0.8942	0.8974	0.893
abalone-3-vs-11	1	1	1	1	1	1	abalone-3-vs-11	1	1	1	1	1	1
car-good	0.9575	0.9599	0.959	0.959	0.9589	0.958	car-good	0.9587	0.9577	0.959	0.959	0.9583	0.9581
dermatology-6	0.9675	0.9822	0.9807	0.9359	0.9674	0.9837	dermatology-6	0.9792	0.957	0.9792	0.9792	0.957	0.9792
ecoli1	0.9084	0.9107	0.9104	0.8966	0.9262	0.9131	ecoli1	0.9111	0.9083	0.9091	0.9125	0.9155	0.9159
ecoli2	0.9519	0.9555	0.9588	0.9572	0.96	0.9525	ecoli2	0.9567	0.9589	0.9586	0.9596	0.9606	0.9587
ecoli3	0.9206	0.9314	0.93	0.9319	0.9377	0.925	ecoli3	0.9305	0.9267	0.9338	0.931	0.9281	0.9314
flare-F	0.8635	0.8952	0.8924	0.8686	0.8582	0.904	flare-F	0.8838	0.8927	0.8999	0.8965	0.8732	0.8907
glass-0-1-2-3-vs-4-5-6	0.9347	0.9541	0.9541	0.9595	0.9341	0.9597	glass-0-1-2-3-vs-4-5-6	0.9545	0.9577	0.9584	0.9572	0.962	0.9632
glass0	0.8342	0.8145	0.8102	0.8091	0.7914	0.8317	glass0	0.8052	0.8052	0.8103	0.8028	0.8106	0.8102
glass1	0.7098	0.7224	0.7133	0.7112	0.6287	0.7367	glass1	0.7144	0.6919	0.7216	0.7117	0.7254	0.7233
glass6	0.9596	0.9545	0.9497	0.9542	0.9304	0.968	glass6	0.9604	0.9616	0.9604	0.9571	0.9555	0.9593
haberman	0.6884	0.6908	0.686	0.689	0.6841	0.7015	haberman	0.6902	0.6838	0.6879	0.6842	0.6916	0.687
kddcup-rootkit	1	1	1	1	1	1	kddcup-rootkit	1	1	1	1	1	1
new-thyroid1	1	1	1	1	1	1	new-thyroid1	1	1	1	1	1	1
pima	0.7913	0.8155	0.8154	0.819	0.8074	0.8208	pima	0.8207	0.8179	0.82	0.8218	0.82	0.8203
vehicle0	0.9428	0.948	0.9451				vehicle0				0.9548		0.9608
winequality-red-8-vs-6	0.7988		0.7881			0.8365	winequality-red-8-vs-6				0.7731		
winequality-white-3-vs-7			0.8854				winequality-white-3-vs-7				0.8849		
wisconsin	0.9829	0.983	0.983	0.983	0.9844	0.9837	wisconsin	0.9831	0.9828	0.9872	0.9831	0.9831	0.9883

Talbe KNN 分类方法下的启发式算法比较

SMOTEWB-Nearmiss	BBO	DE	SAB	whale	ANT	ZOA	SMOTEWB-SUSD	BBO	DE	SAB	whale	ANT	ZOA
abalone-21-vs-8	0.917	0.9179	0.8559	0.9179	0.9166	0.9192	abalone-21-vs-8	0.8839	0.8549	0.8536	0.8472	0.8198	0.8877
abalone-3-vs-11	1	1	1	1	1	1	abalone-3-vs-11	1	1	1	1	1	1
car-good	0.9876	0.9892	0.9929	0.9895	0.9891	0.9880	car-good	0.9843	0.9836	0.9835	0.9852	0.978	0.9781
dermatology-6	1	1	1	1	1	1	dermatology-6	1	1	1	1	1	1
ecoli1	0.9352	0.944	0.95	0.9414	0.9315	0.9431	ecoli1	0.9434	0.9385	0.9339	0.9184	0.9219	0.9379
ecoli2	0.9392	0.9505	0.954	0.9505	0.9459	0.9514	ecoli2	0.9268	0.9448	0.9672	0.9461	0.9446	0.9562
ecoli3	0.8993	0.911	0.929	0.9143	0.9051	0.9111	ecoli3	0.9322	0.9152	0.939	0.9207	0.9278	0.9394
flare-F	0.85	0.8505	0.8255	0.8483	0.8491	0.8475	flare-F	0.8709	0.8697	0.8687	0.8677	0.8543	0.8543
glass-0-1-2-3-vs-4-5-6	0.9732	0.979	0.9805	0.9822	0.9757	0.9815	glass-0-1-2-3-vs-4-5-6	0.965	0.9611	0.9756	0.9653	0.9646	0.9708
glass0	0.8791	0.8904	0.8944	0.8861	0.8781	0.8887	glass0	0.8643	0.8482	0.8759	0.8416	0.8613	0.8767
glass1	0.8745	0.8868	0.8649	0.8793	0.8788	0.8912	glass1	0.8591	0.8576	0.8582	0.8596	0.8464	0.8434
glass6	0.9725	0.9734	0.954	0.9717	0.9699	0.9672	glass6	0.963	0.9634	0.9618	0.9515	0.9619	0.9652
haberman	0.6624	0.6632	0.6309	0.6449	0.6479	0.6560	haberman	0.6435	0.6438	0.6536	0.6428	0.6609	0.664
kddcup-rootkit	1	1	1	1	1	1	kddcup-rootkit	1	1	1	1	1	1
new-thyroid1	0.9944	0.9968	0.9996	0.9947	0.9949	0.9993	new-thyroid1	0.9944	0.996	0.9972	0.9916	0.9928	0.9995
pima	0.7788	0.79	0.7792	0.7867	0.7764	0.7851	pima	0.7737	0.7729	0.7798	0.7812	0.7607	0.7775
vehicle0	0.9712	0.9807	0.9797	0.9798	0.9762	0.9812	vehicle0	0.9538	0.9666	0.9687	0.9519	0.948	0.9648
winequality-red-8-vs-6	0.842	0.829	0.7917	0.8365	0.8239	0.8157	winequality-red-8-vs-6	0.8289	0.8495	0.8486	0.8519	0.8099	0.8307
winequality-white-3-vs-7	0.8948	0.8925	0.8375	0.8945	0.8914	0.8908	winequality-white-3-vs-7	0.686	0.7294	0.7284	0.6807	0.7294	0.7326
wisconsin	0.9871	0.9882	0.9881	0.9869	0.9875	0.9893	wisconsin	0.9873	0.987	0.988	0.988	0.9867	0.9893
yeast6	0.9531	0.9407	0.9153	0.9466	0.9428	0.9194	yeast6	0.8965	0.9106	0.9123	0.9086	0.904	0.9155
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OREM-SUSD	BBO	DE	SAB	whale	ANT	ZOA	OREM-Nearmiss	BBO	DE	SAB	whale	ANT	ZOA
<u> </u>				whale 0.8885	ANT 0.8799	ZOA 0.8706	OREM-Nearmiss abalone-21-vs-8	BBO 0.8885					
OREM-SUSD	BBO	DE	SAB						DE	SAB	whale	ANT	ZOA
OREM-SUSD abalone-21-vs-8	BBO 0.9398	DE 0.8884	SAB 0.8099	0.8885	0.8799	0.8706	abalone-21-vs-8	0.8885	DE 0.8889	SAB 0.8884	whale 0.8879	ANT	ZOA
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11	BBO 0.9398 1	DE 0.8884 1	SAB 0.8099 1	0.8885	0.8799 1	0.8706 1	abalone-21-vs-8 abalone-3-vs-11	0.8885 1	DE 0.8889 1	SAB 0.8884 1	whale 0.8879	ANT 0.8878 1	ZOA 0.8895 1
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good	BBO 0.9398 1 0.986	DE 0.8884 1 0.9945	SAB 0.8099 1 0.994	0.8885 1 0.9943	0.8799 1 0.9902	0.8706 1 0.9885	abalone-21-vs-8 abalone-3-vs-11 car-good	0.8885 1 0.9909	DE 0.8889 1 0.9932	SAB 0.8884 1 0.9943	whale 0.8879 1 0.9936	ANT 0.8878 1 0.9915	ZOA 0.8895 1 0.9915
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6	BBO 0.9398 1 0.986 1	DE 0.8884 1 0.9945 1	SAB 0.8099 1 0.994 1	0.8885 1 0.9943 1	0.8799 1 0.9902 1	0.8706 1 0.9885 1	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6	0.8885 1 0.9909 1	DE 0.8889 1 0.9932 1	SAB 0.8884 1 0.9943 1 0.954	whale 0.8879 1 0.9936 1 0.9539	ANT 0.8878 1 0.9915	ZOA 0.8895 1 0.9915 1 0.9456
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1	BBO 0.9398 1 0.986 1 0.9074	DE 0.8884 1 0.9945 1 0.9371	SAB 0.8099 1 0.994 1 0.9372	0.8885 1 0.9943 1 0.9398	0.8799 1 0.9902 1 0.949	0.8706 1 0.9885 1 0.9336	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1	0.8885 1 0.9909 1 0.9516	DE 0.8889 1 0.9932 1 0.954	SAB 0.8884 1 0.9943 1 0.954 0.9597	whale 0.8879 1 0.9936 1 0.9539	ANT 0.8878 1 0.9915 1 0.9434	ZOA 0.8895 1 0.9915 1 0.9456 0.961
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2	BBO 0.9398 1 0.986 1 0.9074 0.9351	DE 0.8884 1 0.9945 1 0.9371 0.9508	SAB 0.8099 1 0.994 1 0.9372 0.95	0.8885 1 0.9943 1 0.9398 0.9515	0.8799 1 0.9902 1 0.949 0.9654	0.8706 1 0.9885 1 0.9336 0.9505	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2	0.8885 1 0.9909 1 0.9516 0.9589	DE 0.8889 1 0.9932 1 0.954 0.9568	SAB 0.8884 1 0.9943 1 0.954 0.9597	whale 0.8879 1 0.9936 1 0.9539 0.9597	ANT 0.8878 1 0.9915 1 0.9434 0.9546	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205	0.8885 1 0.9943 1 0.9398 0.9515 0.9088	0.8799 1 0.9902 1 0.949 0.9654 0.9354	0.8706 1 0.9885 1 0.9336 0.9505 0.9057	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3	0.8885 1 0.9909 1 0.9516 0.9589 0.9257	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314	whale 0.8879 1 0.9936 1 0.9539 0.9597 0.9355	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.9741	0.8799 1 0.9902 1 0.949 0.9654 0.9354 0.812	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.8316	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337	whale 0.8879 1 0.9936 1 0.9539 0.9597 0.9355 0.8217 0.982	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732 0.9726	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803 0.9785	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785 0.98	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.9741	0.8799 1 0.9902 1 0.949 0.9654 0.9354 0.812 0.9773	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919 0.9834	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323 0.9776	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.8316 0.982	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337 0.9826	whale 0.8879 1 0.9936 1 0.9539 0.9597 0.9355 0.8217 0.982 0.8999	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273 0.9744	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317 0.9775
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732 0.9726 0.868	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803 0.9785 0.8897	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785 0.98 0.8911	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.9741 0.8888	0.8799 1 0.9902 1 0.949 0.9654 0.9354 0.812 0.9773 0.877	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919 0.9834 0.8874	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323 0.9776 0.8955	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.8316 0.982 0.8998	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337 0.9826 0.9011	whale 0.8879 1 0.9936 1 0.9539 0.9597 0.9355 0.8217 0.982 0.8999	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273 0.9744 0.8911	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317 0.9775 0.8904
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732 0.9726 0.868 0.8682	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803 0.9785 0.8897 0.8554	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785 0.98 0.8911 0.8509	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.9741 0.8888 0.8507	0.8799 1 0.9902 1 0.949 0.9654 0.9354 0.812 0.9773 0.877 0.8195	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919 0.9834 0.8874 0.878	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323 0.9776 0.8955 0.8732	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.8316 0.982 0.8998 0.8703	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337 0.9826 0.9011 0.8712 0.9688	whale 0.8879 1 0.9936 1 0.9539 0.9597 0.9355 0.8217 0.982 0.8999 0.871 0.9725	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273 0.9744 0.8911 0.863 0.9649	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317 0.9775 0.8904 0.8727
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732 0.9726 0.868 0.8682 0.9143	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803 0.9785 0.8897 0.8554 0.9218	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785 0.98 0.8911 0.8509 0.9375	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.9741 0.8888 0.8507 0.9304	0.8799 1 0.9902 1 0.949 0.9654 0.9354 0.812 0.9773 0.877 0.8195 0.9733	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919 0.9834 0.8874 0.878	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323 0.9776 0.8955 0.8732	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.8316 0.982 0.8703 0.9689	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337 0.9826 0.9011 0.8712 0.9688	whale 0.8879 1 0.9936 1 0.9539 0.9597 0.9355 0.8217 0.982 0.8999 0.871 0.9725	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273 0.9744 0.8911 0.863 0.9649	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317 0.9775 0.8904 0.8727 0.9725
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732 0.9726 0.868 0.8682 0.9143 0.602 1	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803 0.9785 0.8897 0.8554 0.9218 0.6253 1	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785 0.98 0.8911 0.8509 0.9375 0.6298	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.9741 0.8888 0.8507 0.9304 0.6068 1	0.8799 1 0.9902 1 0.949 0.9654 0.9354 0.812 0.9773 0.877 0.8195 0.9733 0.649 1	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919 0.9834 0.8874 0.878 0.9582 0.6493	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323 0.9776 0.8955 0.8732 0.9689 0.677	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.8316 0.982 0.8998 0.8703 0.9689 0.6841	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337 0.9826 0.9011 0.8712 0.9688 0.6843	whale 0.8879 1 0.9936 1 0.9539 0.9557 0.9355 0.8217 0.982 0.8999 0.871 0.9725 0.6845 1	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273 0.9744 0.8911 0.863 0.9649 0.6726	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317 0.9775 0.8904 0.8727 0.9725 0.6821 1
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732 0.9726 0.868 0.8682 0.9143 0.602 1 0.9935	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803 0.9785 0.8897 0.8554 0.9218 0.6253 1 0.9972	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785 0.98 0.8911 0.8509 0.9375 0.6298 1	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.8888 0.8507 0.9304 0.6068 1 0.9948	0.8799 1 0.9902 1 0.949 0.9654 0.9354 0.812 0.9773 0.877 0.8195 0.9733 0.649 1 0.996	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919 0.9834 0.8874 0.878 0.9582 0.6493	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323 0.9776 0.8955 0.8732 0.9689 0.677	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.8316 0.982 0.8998 0.8703 0.9689 0.6841	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337 0.9826 0.9011 0.8712 0.9688 0.6843 1 1	whale 0.8879 1 0.9936 1 0.9539 0.9557 0.9355 0.8217 0.982 0.8999 0.871 0.9725 0.6845 1 0.9996	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273 0.9744 0.8911 0.863 0.9649 0.6726 1	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317 0.9775 0.8904 0.8727 0.9725 0.6821 1 0.9972
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732 0.9726 0.868 0.8682 0.9143 0.602 1 0.9935 0.7702	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803 0.9785 0.8897 0.8554 0.9218 0.6253 1 0.9972 0.7734	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785 0.98 0.8911 0.8509 0.9375 0.6298 1 0.9964	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.9741 0.8888 0.8507 0.9304 0.6068 1 0.9948 0.7739	0.8799 1 0.9902 1 0.949 0.9654 0.9354 0.812 0.9773 0.877 0.8195 0.9733 0.649 1 0.996 0.7669	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919 0.9834 0.8874 0.878 0.9582 0.6493 1 0.9984 0.7888	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323 0.9776 0.8955 0.8732 0.677 1 0.9968	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.8316 0.982 0.8998 0.8703 0.9689 0.6841 1 1 0.7951	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337 0.9826 0.9011 0.8712 0.9688 0.6843 1 1 0.8	whale 0.8879 1 0.9936 1 0.9539 0.9557 0.9355 0.8217 0.982 0.8999 0.871 0.9725 0.6845 1 0.9996	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273 0.9744 0.8911 0.863 0.9649 0.6726 1 0.9972 0.7911	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317 0.9775 0.8904 0.8727 0.9725 0.6821 1 0.9972 0.7955
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732 0.9726 0.868 0.8682 0.9143 0.602 1 0.9935 0.7702 0.9682	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803 0.9785 0.8897 0.8554 0.9218 0.6253 1 0.9972 0.7734 0.9784	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785 0.98 0.8911 0.8509 0.9375 0.6298 1 0.9964 0.7741	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.8888 0.8507 0.9304 0.6068 1 0.9948 0.7739 0.9781	0.8799 1 0.9902 1 0.949 0.9654 0.9354 0.812 0.9773 0.877 0.8195 0.9733 0.649 1 0.996 0.7669 0.9679	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919 0.9834 0.8874 0.878 0.9582 0.6493 1 0.9984 0.7888	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323 0.9776 0.8955 0.8732 0.9689 0.677 1 0.9968 0.794 0.9808	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.8316 0.982 0.8703 0.9689 0.6841 1 1 0.7951 0.983	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337 0.9826 0.9011 0.8712 0.9688 0.6843 1 1 0.8 0.9845	whale 0.8879 1 0.9936 1 0.9539 0.9597 0.9355 0.8217 0.982 0.8999 0.871 0.9725 0.6845 1 0.9996 0.7954	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273 0.9744 0.8911 0.863 0.9649 0.6726 1 0.9972 0.7911 0.9826	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317 0.9775 0.8904 0.8727 0.9725 0.6821 1 0.9972 0.7955
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732 0.9726 0.868 0.8682 0.9143 0.602 1 0.9935 0.7702 0.9682 0.9682 0.06439	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803 0.9785 0.8897 0.8554 0.9218 0.6253 1 0.9972 0.7734 0.9784 0.6974	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785 0.98 0.8911 0.8509 0.9375 0.6298 1 0.9964 0.7741 0.9779	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.8888 0.8507 0.9304 0.6068 1 0.9948 0.7739 0.9781 0.6953	0.8799 1 0.9902 1 0.949 0.9654 0.9354 0.812 0.9773 0.8195 0.9733 0.649 1 0.996 0.7669 0.9679 0.6514	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919 0.9834 0.878 0.9582 0.6493 1 0.9984 0.7888 0.9811	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323 0.9776 0.8955 0.8732 0.9689 0.677 1 0.9968 0.794 0.9808 0.8047	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.8316 0.982 0.8703 0.9689 0.6841 1 1 0.7951 0.983 0.8021	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337 0.9826 0.9011 0.8712 0.9688 0.6843 1 1 0.8 0.9845 0.9845 0.8124	whale 0.8879 1 0.9936 1 0.9539 0.9557 0.9355 0.8217 0.982 0.8999 0.871 0.9725 0.6845 1 0.9996 0.7954 0.9865 0.8155	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273 0.9744 0.8911 0.863 0.9649 0.6726 1 0.9972 0.7911 0.9826	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317 0.9775 0.8904 0.8727 0.9725 0.6821 1 0.9972 0.7955 0.986
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0 winequality-red-8-vs-6	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732 0.9726 0.868 0.8682 0.9143 0.602 1 0.9935 0.7702 0.9682 0.6439 0.7924	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803 0.9785 0.8897 0.8554 0.9218 0.6253 1 0.9972 0.7734 0.9784 0.6974	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785 0.98 0.8509 0.9375 0.6298 1 0.9964 0.7741 0.9779 0.6914	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.8888 0.8507 0.9304 0.6068 1 0.9948 0.7739 0.9781 0.6953	0.8799 1 0.9902 1 0.949 0.9654 0.9354 0.812 0.9773 0.877 0.8195 0.9733 0.649 1 0.996 0.7669 0.9679 0.6514 0.7525	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919 0.9834 0.8874 0.878 0.9582 0.6493 1 0.9984 0.7888 0.9811 0.6526	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0 winequality-red-8-vs-6	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323 0.9776 0.8955 0.8732 0.9689 0.677 1 0.9968 0.794 0.9808 0.8047	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.8816 0.982 0.8703 0.9689 0.6841 1 1 0.7951 0.983 0.8021 0.8638	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337 0.9826 0.9011 0.8712 0.9688 0.6843 1 1 0.8 0.9845 0.8124 0.8838	whale 0.8879 1 0.9936 1 0.9539 0.9557 0.9355 0.8217 0.982 0.8999 0.871 0.9725 0.6845 1 0.9996 0.7954 0.9865 0.8155	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273 0.9744 0.8911 0.863 0.9649 0.6726 1 0.9972 0.7911 0.9826 0.82	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317 0.9775 0.8904 0.8727 0.9725 0.6821 1 0.9972 0.7955 0.986 0.8201
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kdcup-rootkit new-thyroid1 pima vehicle0 winequality-red-8-vs-6 winequality-white-3-vs-7	BBO 0.9398 1 0.986 1 0.9074 0.9351 0.8792 0.7732 0.9726 0.868 0.8682 0.9143 0.602 1 0.9935 0.7702 0.9682 0.6439 0.7924 0.9861	DE 0.8884 1 0.9945 1 0.9371 0.9508 0.9217 0.7803 0.9785 0.8897 0.8554 0.9218 0.6253 1 0.9972 0.7734 0.9784 0.6974 0.8398 0.9878	SAB 0.8099 1 0.994 1 0.9372 0.95 0.9205 0.7785 0.98 0.8911 0.8509 0.9375 0.6298 1 0.9964 0.7741 0.9779 0.6914 0.8169	0.8885 1 0.9943 1 0.9398 0.9515 0.9088 0.7781 0.8888 0.8507 0.9304 0.6068 1 0.9948 0.7739 0.9781 0.6953 0.8166 0.9865	0.8799 1 0.9902 1 0.949 0.9654 0.812 0.9773 0.8195 0.9733 0.649 1 0.996 0.7669 0.9679 0.6514 0.7525 0.9863	0.8706 1 0.9885 1 0.9336 0.9505 0.9057 0.7919 0.9834 0.8874 0.878 0.9582 0.6493 1 0.9984 0.7888 0.9811 0.6526 0.84 0.9905	abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0 winequality-red-8-vs-6 winequality-white-3-vs-7	0.8885 1 0.9909 1 0.9516 0.9589 0.9257 0.8323 0.9776 0.8955 0.8732 0.9689 0.677 1 0.9968 0.794 0.9808 0.8047 0.8825 0.9872	DE 0.8889 1 0.9932 1 0.954 0.9568 0.9321 0.88316 0.982 0.8998 0.8703 0.9689 0.6841 1 1 0.7951 0.983 0.8021 0.8638 0.981	SAB 0.8884 1 0.9943 1 0.954 0.9597 0.9314 0.8337 0.9826 0.9011 0.8712 0.9688 0.6843 1 1 0.8 0.9845 0.8124 0.8838 0.9889	whale 0.8879 1 0.9936 1 0.9539 0.9557 0.9355 0.8217 0.982 0.8999 0.871 0.9725 0.6845 1 0.9996 0.7954 0.9865 0.8155 0.863	ANT 0.8878 1 0.9915 1 0.9434 0.9546 0.9283 0.8273 0.9744 0.8911 0.863 0.9649 0.6726 1 0.9972 0.7911 0.9826 0.82 0.894 0.9869	ZOA 0.8895 1 0.9915 1 0.9456 0.961 0.926 0.8317 0.9775 0.8904 0.8727 0.9725 0.6821 1 0.9972 0.7955 0.986 0.8201 0.8863 0.9903

Table LR 算法下的启发式算法比较

CMOTEWD N	DDO	D.E.	C + D	1 1	A 3 T/E2	70.	CMOTEWD GLICD	DDC	D.E.	CAF	1 1	A 3 TOP	70.
SMOTEWB-Nearmiss	BBO	DE	SAB	whale	ANT	ZOA	SMOTEWB-SUSD	BBO	DE	SAB	whale	ANT	ZOA
abalone-21-vs-8	0.9866		0.9508	0.9857	0.9857	0.9857	abalone-21-vs-8	0.938	0.918	0.9198	0.905	0.8838	0.9444
abalone-3-vs-11	1	1	1	1	1	1	abalone-3-vs-11	1	1	1	1	1	1
car-good	0.9442			0.9435	0.9429	0.9442	car-good	0.9447	0.9439				0.946
dermatology-6	1	1	1	1	1	1	dermatology-6	1	1	1	1	1	1
ecoli1	0.9552		0.9604	0.9559	0.9574	0.9612	ecoli1		0.9552			0.9554	
ecoli2	0.9439	0.942	0.9407	0.9434	0.9413	0.9419	ecoli2	0.9419	0.9399			0.9364	
ecoli3	0.9567		0.9543		0.9558	0.9572	ecoli3	0.9517	0.9448	0.9524		0.9445	
flare-F	0.8904	0.8893	0.8941		0.8874	0.8896	flare-F	0.8916	0.8966	0.8916		0.8867	
glass-0-1-2-3-vs-4-5-6	0.9851	0.9851	0.9799	0.9826	0.9842	0.9854	glass-0-1-2-3-vs-4-5-6	0.984	0.9829				0.9779
glass0	0.829	0.83	0.838	0.8322	0.829	0.8310	glass0	0.8268	0.8335			0.8264	
glass1	0.6502		0.6367	0.639	0.6432	0.6527	glass1	0.6163	0.6287			0.5984	
glass6	0.9728	0.9747	0.9722	0.9773	0.9749	0.9747	glass6	0.9701	0.9721		0.975		0.9728
haberman	0.7045		0.71	0.7094	0.7054	0.7146	haberman	0.6951		0.6976		0.7041	
kddcup-rootkit	1	1	1	1	1	1	kddcup-rootkit	1	1	1	1	1	1
new-thyroid1	0.9963	0.9949	0.9976	0.9949	0.9949	0.9986	new-thyroid1	0.9949	0.9984		0.996		0.9986
pima	0.8354	0.835	0.8344	0.8355	0.834	0.8359	pima	0.8319	0.8303	0.8298	0.8329	0.8241	
vehicle0	0.9925	0.9925	0.9919	0.9923	0.9925	0.9923	vehicle0	0.9855		0.9849	0.9836	0.9837	
winequality-red-8-vs-6	0.9035		0.8764	0.9019	0.9027	0.9034	winequality-red-8-vs-6	0.8878	0.8821	0.8873	0.876		0.8796
winequality-white-3-vs-7	0.8324	0.8169	0.8399	0.8146	0.8108	0.8266	winequality-white-3-vs-7		0.8217	0.8274	0.8081	0.823	0.8248
wisconsin	0.9959	0.9959	0.9955	0.9958	0.996	0.9959	wisconsin	0.9961	0.9956	0.9957		0.9959	0.9959
yeast6	0.9403			0.9388	0.9399	0.9396	yeast6	0.935	0.9462	0.9471		0.9289	0.9321
OREM-SUSD	BBO	DE	SAB	whale	ANT	ZOA	OREM-Nearmiss	BBO	DE	SAB	whale	ANT	ZOA
OREM-SUSD abalone-21-vs-8	BBO 0.9275	DE 0.9295	SAB 0.9366	whale 0.9292	ANT 0.9137	ZOA 0.9848	OREM-Nearmiss abalone-21-vs-8	BBO 0.9667	DE 0.962	SAB 0.9561	whale 0.9522	ANT 0.9638	ZOA 0.9764
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11	BBO 0.9275 1	DE 0.9295 1	SAB 0.9366 1	whale 0.9292 1	ANT 0.9137 1	ZOA 0.9848 1	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11	BBO 0.9667 1	DE 0.962 1	SAB 0.9561 1	whale 0.9522 1	ANT 0.9638 1	ZOA 0.9764 1
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good	BBO 0.9275 1 0.9429	DE 0.9295 1 0.9435	SAB 0.9366 1 0.9435	whale 0.9292 1 0.9435	ANT 0.9137 1 0.9448	ZOA 0.9848 1 0.9433	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good	BBO 0.9667 1 0.944	DE 0.962 1 0.9444	SAB 0.9561 1 0.9446	whale 0.9522 1 0.9444	ANT 0.9638 1 0.9447	ZOA 0.9764 1 0.9443
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6	BBO 0.9275 1 0.9429 1	DE 0.9295 1 0.9435 1	SAB 0.9366 1 0.9435 1	whale 0.9292 1 0.9435 1	ANT 0.9137 1 0.9448 1	ZOA 0.9848 1 0.9433 1	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6	BBO 0.9667 1 0.944 1	DE 0.962 1 0.9444 1	SAB 0.9561 1 0.9446 1	whale 0.9522 1 0.9444 1	ANT 0.9638 1 0.9447 1	ZOA 0.9764 1 0.9443 1
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1	BBO 0.9275 1 0.9429 1 0.9547	DE 0.9295 1 0.9435 1 0.9599	SAB 0.9366 1 0.9435 1 0.9609	whale 0.9292 1 0.9435 1 0.9593	ANT 0.9137 1 0.9448 1 0.959	ZOA 0.9848 1 0.9433 1 0.9611	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1	BBO 0.9667 1 0.944 1 0.9607	DE 0.962 1 0.9444 1 0.9616	SAB 0.9561 1 0.9446 1 0.9609	whale 0.9522 1 0.9444 1 0.9607	ANT 0.9638 1 0.9447 1 0.9604	ZOA 0.9764 1 0.9443 1 0.9607
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2	BBO 0.9275 1 0.9429 1 0.9547 0.9385	DE 0.9295 1 0.9435 1 0.9599 0.9436	SAB 0.9366 1 0.9435 1 0.9609 0.9423	whale 0.9292 1 0.9435 1 0.9593 0.9402	ANT 0.9137 1 0.9448 1 0.959 0.9429	ZOA 0.9848 1 0.9433 1 0.9611 0.9421	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2	BBO 0.9667 1 0.944 1 0.9607 0.9433	DE 0.962 1 0.9444 1 0.9616 0.9436	SAB 0.9561 1 0.9446 1 0.9609 0.9405	whale 0.9522 1 0.9444 1 0.9607 0.9412	ANT 0.9638 1 0.9447 1 0.9604 0.9436	ZOA 0.9764 1 0.9443 1 0.9607 0.9424
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.9452	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521	ZOA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495	ANT 0.9638 1 0.9447 1 0.9604 0.9436 0.9533	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.9452 0.859	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922	ZOA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922	ANT 0.9638 1 0.9447 1 0.9604 0.9436 0.9533 0.8875	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.9452 0.859 0.9798	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786	ZOA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895 0.9792	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762	ANT 0.9638 1 0.9447 1 0.9604 0.9436 0.9533 0.8875 0.9799	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802 0.827	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773 0.8355	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769 0.8369	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.9452 0.859 0.9798 0.833	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786 0.8243	ZOA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983 0.83	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798 0.834	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895 0.9792 0.8375	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798 0.8375	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762 0.837	ANT 0.9638 1 0.9447 1 0.9604 0.9436 0.9533 0.8875 0.9799 0.835	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805 0.834
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802 0.827 0.6308	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773 0.8355 0.6517	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769 0.8369 0.6385	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.859 0.879 0.833 0.6242	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786 0.8243 0.6285	2OA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983 0.83 0.6902	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798 0.834 0.6493	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895 0.9792 0.8375 0.6564	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798 0.8375 0.6276	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762 0.837 0.6274	ANT 0.9638 1 0.9447 1 0.9604 0.9436 0.9533 0.8875 0.9799 0.835 0.6436	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805 0.834 0.6429
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802 0.827 0.6308 0.9712	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773 0.8355 0.6517 0.9732	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769 0.8369 0.6385 0.9732	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.9452 0.859 0.9798 0.833 0.6242 0.9695	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786 0.8243 0.6285 0.9677	2OA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983 0.6902 0.9694	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798 0.6493 0.9722	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895 0.9792 0.8375 0.6564 0.9722	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798 0.8375 0.6276 0.9731	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762 0.837 0.6274 0.968	ANT 0.9638 1 0.9447 1 0.9604 0.9436 0.9533 0.8875 0.9799 0.835 0.6436 0.9732	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805 0.834 0.6429 0.973
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802 0.827 0.6308 0.9712	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773 0.8355 0.6517 0.9732 0.7093	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769 0.8369 0.6385 0.9732 0.6908	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.9452 0.859 0.9798 0.833 0.6242 0.9695 0.6805	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786 0.8243 0.6285 0.9677 0.6793	2OA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983 0.83 0.6902	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798 0.834 0.6493 0.9722 0.6955	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895 0.9792 0.8375 0.6564 0.9722 0.7096	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798 0.8375 0.6276 0.9731 0.7044	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762 0.837 0.6274 0.968 0.7053	ANT 0.9638 1 0.9447 1 0.9604 0.9533 0.8875 0.9799 0.835 0.6436 0.9732 0.7015	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805 0.834 0.6429 0.973
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802 0.827 0.6308 0.9712 0.6952 1	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773 0.8355 0.6517 0.9732 0.7093 1	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769 0.8369 0.6385 0.9732 0.6908 1	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.9452 0.859 0.9798 0.833 0.6242 0.9695 0.6805 1	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786 0.8243 0.6285 0.9677 0.6793	2OA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983 0.6902 0.9694 0.7091	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798 0.834 0.6493 0.9722 0.6955	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895 0.9792 0.8375 0.6564 0.9722 0.7096	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798 0.8375 0.6276 0.9731 0.7044 1	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762 0.837 0.6274 0.968 0.7053 1	ANT 0.9638 1 0.9447 1 0.9604 0.9533 0.8875 0.9799 0.835 0.6436 0.9732 0.7015	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805 0.834 0.6429 0.973 0.6962 1
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802 0.827 0.6308 0.9712 0.6952 1 0.9949	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773 0.8355 0.6517 0.9732 0.7093 1 0.9976	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769 0.6385 0.9732 0.6908 1 0.9976	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.9452 0.859 0.9798 0.833 0.6242 0.9695 0.6805 1 0.9976	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786 0.8243 0.6285 0.9677 0.6793 1 0.9981	2OA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983 0.6902 0.9694 0.7091 1 0.9986	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798 0.834 0.6493 0.9722 0.6955 1 0.9984	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895 0.9792 0.8375 0.6564 0.9722 0.7096 1 0.9992	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798 0.8375 0.6276 0.9731 0.7044 1 0.9984	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762 0.837 0.6274 0.968 0.7053 1 0.9992	ANT 0.9638 1 0.9447 1 0.9604 0.9533 0.8875 0.9799 0.835 0.6436 0.9732 1 0.7015 1	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805 0.834 0.6429 0.973 0.6962 1 0.9992
OREM-SUSD abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802 0.827 0.6308 0.9712 0.6952 1 0.9949 0.8332	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773 0.8355 0.6517 0.9732 0.7093 1 0.9976 0.8319	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769 0.6385 0.9732 0.6908 1 0.9976 0.8323	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.859 0.879 0.833 0.6242 0.9695 0.6805 1 0.9976 0.832	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786 0.8243 0.6285 0.9677 0.6793 1 0.9981 0.8189	20A 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983 0.6902 0.9694 0.7091 1 0.9986 0.835	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798 0.6493 0.9722 0.6955 1 0.9984 0.8315	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895 0.9792 0.8375 0.6564 0.9722 0.7096 1 0.9992 0.8302	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798 0.8375 0.6276 0.9731 0.7044 1 0.9984 0.8333	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762 0.837 0.6274 0.968 0.7053 1 0.9992 0.8329	ANT 0.9638 1 0.9447 1 0.9604 0.9436 0.9533 0.8875 0.9799 0.835 0.6436 0.9732 0.7015 1 0.9992 0.8326	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805 0.834 0.6429 0.973 0.6962 1 0.9992 0.8416
orem-susd abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802 0.827 0.6308 0.9712 0.6952 1 0.9949 0.8332 0.9926	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773 0.8355 0.6517 0.9732 0.7093 1 0.9976 0.8319 0.9925	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769 0.6385 0.9732 0.6908 1 0.9976 0.8323 0.9923	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.859 0.879 0.833 0.6242 0.9695 0.6805 1 0.9976 0.832 0.9916	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786 0.8243 0.6285 0.9677 0.6793 1 0.9981 0.8189 0.99	2OA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983 0.6902 0.9694 0.7091 1 0.9986 0.835 0.9923	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798 0.6493 0.9722 0.6955 1 0.9984 0.8315 0.9893	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895 0.9792 0.8375 0.6564 0.9722 0.7096 1 0.9992 0.8302 0.9805	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798 0.8375 0.6276 0.9731 0.7044 1 0.9984 0.8333 0.9899	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762 0.837 0.6274 0.968 0.7053 1 0.9992 0.8329 0.9895	ANT 0.9638 1 0.9447 1 0.9604 0.9436 0.9533 0.8875 0.9799 0.835 0.6436 0.9732 0.7015 1 0.9992 0.8326 0.9899	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805 0.834 0.6429 0.973 0.6962 1 0.9992 0.8416 0.99
orem-susd abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0 winequality-red-8-vs-6	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802 0.827 0.6308 0.9712 0.6952 1 0.9949 0.8332 0.9926 0.9098	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773 0.8355 0.6517 0.9732 0.7093 1 0.9976 0.8319 0.9925 0.8859	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769 0.8369 0.6385 0.9732 0.6908 1 0.9976 0.8323 0.9923 0.8794	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.9452 0.859 0.9798 0.833 0.6242 0.9695 0.6805 1 0.9976 0.832 0.9916 0.8769	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786 0.8243 0.6285 0.9677 0.6793 1 0.9981 0.8189 0.99 0.9003	2OA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983 0.6902 0.9694 0.7091 1 0.9986 0.835 0.9923 0.9105	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0 winequality-red-8-vs-6	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798 0.6493 0.9722 0.6955 1 0.9984 0.8315 0.9893 0.8735	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895 0.9792 0.8375 0.6564 0.9722 0.7096 1 0.9992 0.8302 0.9805 0.9805 0.8701	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798 0.8375 0.6276 0.9731 0.7044 1 0.9984 0.8333 0.9899 0.8734	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762 0.837 0.6274 0.968 0.7053 1 0.9992 0.8329 0.9895 0.8736	ANT 0.9638 1 0.9447 1 0.9604 0.9533 0.8875 0.9799 0.835 0.6436 0.9732 0.7015 1 0.9992 0.8326 0.9899 0.876	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805 0.834 0.6429 0.973 0.6962 1 0.9992 0.8416 0.99 0.8831
orem-susd abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802 0.827 0.6308 0.9712 0.6952 1 0.9949 0.8332 0.9926 0.9098	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773 0.8355 0.6517 0.9732 0.7093 1 0.9976 0.8319 0.9925 0.8859	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769 0.6385 0.9732 0.6908 1 0.9976 0.8323 0.9923	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.9452 0.859 0.9798 0.833 0.6242 0.9695 0.6805 1 0.9976 0.832 0.9916 0.8769	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786 0.8243 0.6285 0.9677 0.6793 1 0.9981 0.8189 0.99 0.9003	2OA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983 0.6902 0.9694 0.7091 1 0.9986 0.835 0.9923 0.9105	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798 0.6493 0.9722 0.6955 1 0.9984 0.8315 0.9893 0.8735	DE 0.962 1 0.9444 1 0.9616 0.9436 0.9552 0.895 0.9792 0.8375 0.6564 0.9722 0.7096 1 0.9992 0.8302 0.9805 0.9805 0.8701	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798 0.8375 0.6276 0.9731 0.7044 1 0.9984 0.8333 0.9899 0.8734	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762 0.837 0.6274 0.968 0.7053 1 0.9992 0.8329 0.9895 0.8736	ANT 0.9638 1 0.9447 1 0.9604 0.9436 0.9533 0.8875 0.9799 0.835 0.6436 0.9732 0.7015 1 0.9992 0.8326 0.9899	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805 0.834 0.6429 0.973 0.6962 1 0.9992 0.8416 0.99 0.8831
orem-susd abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kddcup-rootkit new-thyroid1 pima vehicle0 winequality-red-8-vs-6	BBO 0.9275 1 0.9429 1 0.9547 0.9385 0.9456 0.8793 0.9802 0.827 0.6308 0.9712 0.6952 1 0.9949 0.8332 0.9926 0.9988 0.9191 0.9959	DE 0.9295 1 0.9435 1 0.9599 0.9436 0.9538 0.8826 0.9773 0.8355 0.6517 0.9732 0.7093 1 0.9976 0.8319 0.9925 0.8859 0.8499 0.9956	SAB 0.9366 1 0.9435 1 0.9609 0.9423 0.9524 0.8838 0.9769 0.8369 0.6385 0.9732 0.6908 1 0.9976 0.8323 0.9923 0.8794	whale 0.9292 1 0.9435 1 0.9593 0.9402 0.9452 0.859 0.9798 0.833 0.6242 0.9695 0.6805 1 0.9976 0.832 0.9916 0.8769 0.8476 0.9953	ANT 0.9137 1 0.9448 1 0.959 0.9429 0.9521 0.8922 0.9786 0.8243 0.6285 0.9677 0.6793 1 0.9981 0.8189 0.99 0.9003 0.7928 0.9953	2OA 0.9848 1 0.9433 1 0.9611 0.9421 0.9547 0.887 0.983 0.6902 0.9694 0.7091 1 0.9986 0.835 0.9923 0.9105	OREM-Nearmiss abalone-21-vs-8 abalone-3-vs-11 car-good dermatology-6 ecoli1 ecoli2 ecoli3 flare-F glass-0-1-2-3-vs-4-5-6 glass0 glass1 glass6 haberman kdcup-rootkit new-thyroid1 pima vehicle0 winequality-red-8-vs-6 winequality-white-3-vs-7 wisconsin	BBO 0.9667 1 0.944 1 0.9607 0.9433 0.95 0.8897 0.9798 0.6955 1 0.9984 0.8315 0.9893 0.8735 0.8374	DE 0.962 1 0.9444 1 0.9616 0.9552 0.895 0.9792 0.8375 0.6564 0.9722 0.7096 1 0.9992 0.8302 0.9805 0.8277 0.9954	SAB 0.9561 1 0.9446 1 0.9609 0.9405 0.9543 0.8933 0.9798 0.8375 0.6276 0.9731 0.7044 1 0.9984 0.8333 0.9889 0.8734 0.883	whale 0.9522 1 0.9444 1 0.9607 0.9412 0.9495 0.8922 0.9762 0.837 0.6274 0.968 0.7053 1 0.9992 0.8329 0.8329 0.9895 0.8736 0.8345 0.9954	ANT 0.9638 1 0.9447 1 0.9604 0.9436 0.9533 0.8875 0.9799 0.835 0.6436 0.9732 0.7015 1 0.9992 0.8326 0.9899 0.876 0.8351	ZOA 0.9764 1 0.9443 1 0.9607 0.9424 0.9514 0.89 0.9805 0.834 0.6429 0.973 0.6962 1 0.9992 0.8416 0.99 0.8831 0.8366 0.9953

Table SVC 算法下的启发式算法比较

SMOTEWB-Nearmiss BBO DE SAB whale ANT ZOA SMOTEWB-SUSD BBO DE SAB whale All abalone-21-vs-8 0.9562 0.9571 0.9112 0.9536 0.9545 0.9536 abalone-21-vs-8 0.9528 0.8967 0.9048 0.862 0.862 abalone-3-vs-11 <	T ZOA
abalone-3-vs-11 1 1 1 1 1 abalone-3-vs-11 1 1 1 1 1 1 1 1 1 car-good 0.9913 0.9913 0.9918 0.9914 0.9914 0.9912 car-good 0.9838 0.9841 0.985 0.9834 0.985	
car-good 0.9913 0.9913 0.9918 0.9914 0.9914 0.9912 car-good 0.9838 0.9841 0.985 0.9834 0.985	2 0.9569
	1
	0.9853
dermatology-6 1 1 1 1 1 dermatology-6 1 1 1 1 1	1
ecoli1 0.9535 0.9624 0.9657 0.9625 0.9538 0.9625 ecoli1 0.9504 0.9551 0.9551 0.9543 0.95	9 0.9578
ecoli2 0.9632 0.9678 0.9691 0.9664 0.9645 0.9677 ecoli2 0.9608 0.9684 0.9691 0.9704 0.968	9 0.9656
ecoli3 0.9633 0.9636 0.9624 0.9522 0.9567 0.9633 ecoli3 0.9556 0.96 0.9595 0.9595 0.95	8 0.9619
flare-F 0.8732 0.8794 0.865 0.8757 0.8743 0.8687 flare-F 0.8944 0.8973 0.8986 0.9 0.89	6 0.9024
glass-0-1-2-3-vs-4-5-6 0.9967 0.9967 0.992 0.9967 0.9942 0.9966 glass-0-1-2-3-vs-4-5-6 0.9931 0.9907 0.9895 0.9895 0.9895	0.9855
glass0 0.8407 0.8411 0.846 0.8432 0.8444 0.8397 glass0 0.838 0.8341 0.8437 0.8396 0.83	6 0.8487
glass1 0.7922 0.7928 0.7844 0.8022 0.7822 0.8024 glass1 0.7785 0.7927 0.7918 0.7769 0.75	9 0.7814
glass6 0.9833 0.987 0.9813 0.9852 0.9852 0.9870 glass6 0.9852 0.981 0.9836 0.9818 0.98	1 0.988
haberman 0.7161 0.7377 0.7264 0.736 0.7022 0.7359 haberman 0.6919 0.6971 0.7085 0.7059 0.71	8 0.7156
kddcup-rootkit 1 1 1 1 1 1 kddcup-rootkit 1 1 1 1 1	1
new-thyroid1 1 1 1 1 1 new-thyroid1 1 1 1 0.99	1 1
pima 0.8334 0.8397 0.8384 0.8378 0.8329 0.8377 pima 0.8383 0.8413 0.8397 0.836 0.82	0.8322
vehicle0 0.9952 0.9954 0.9951 0.9953 0.9953 0.9955 vehicle0 0.9928 0.9934 0.9929 0.9914 0.995	0.9927
winequality-red-8-vs-6 0.8759 0.8497 0.8464 0.8531 0.8616 0.8664 winequality-red-8-vs-6 0.8901 0.8957 0.8977 0.9044 0.8664	3 0.8866
winequality-white-3-vs-7 0.9277 0.9323 0.8828 0.9272 0.9187 0.9249 winequality-white-3-vs-7 0.889 0.8666 0.8823 0.8885 0.87	7 0.8682
wisconsin 0.9855 0.9901 0.9889 0.9884 0.9851 0.9889 wisconsin 0.9857 0.9861 0.9881 0.9867 0.98	6 0.9896
yeast6 0.9485 0.9497 0.9554 0.9466 0.9488 0.9491 yeast6 0.9424 0.9506 0.9513 0.952 0.93	8 0.9349
OREM-SUSD BBO DE SAB whale ANT ZOA OREM-Nearmiss BBO DE SAB whale ANT	ZOA
abalone-21-vs-8 0.9438 0.9071 0.9053 0.9095 0.9034 0.9322 abalone-21-vs-8 0.8865 0.8871 0.9094 0.8811 0.88	5 0.8882
abalone-3-vs-11 1 1 1 1 1 abalone-3-vs-11 1 1 1 1 1	1
car-good 0.992 0.992 0.9919 0.9922 0.9915 0.9916 car-good 0.9915 0.9912 0.9912 0.9914 0.99	2 0.9912
dermatology-6 1 1 1 1 1 1 dermatology-6 1 1 1 1 1	1
ecoli1 0.9525 0.9627 0.962 0.9632 0.9597 0.961 ecoli1 0.9658 0.9652 0.9662 0.9652 0.95	4 0.9601
ecoli2 0.9617 0.9695 0.9688 0.9682 0.969 0.9664 ecoli2 0.9694 0.9704 0.9694 0.9707 0.9694	8 0.9694
ecoli3 0.9539 0.9576 0.9581 0.9552 0.9528 0.9633 ecoli3 0.9543 0.9624 0.9619 0.9595 0.95	4 0.9514
flare-F 0.8705 0.8631 0.862 0.8639 0.8642 0.8668 flare-F 0.8743 0.8783 0.8641 0.868 0.87	8 0.8788
glass-0-1-2-3-vs-4-5-6 0.9894 0.9926 0.992 0.992 0.998 0.9967 glass-0-1-2-3-vs-4-5-6 0.9913 0.9926 0.992 0.992 0.992	0.9926
glass0 0.8352 0.8443 0.84 0.8447 0.8282 0.8403 glass0 0.8427 0.8459 0.844 0.8362 0.84	0.8457
glass1 0.778 0.7807 0.7813 0.751 0.7266 0.7985 glass1 0.7707 0.7852 0.78 0.7847 0.77	2 0.7773
glass6 0.9815 0.9758 0.9789 0.9753 0.9857 0.9852 glass6 0.9829 0.984 0.9858 0.9836 0.98	6 0.9859
haberman 0.6939 0.7106 0.7162 0.71 0.66 0.7426 haberman 0.6974 0.7235 0.7198 0.7329 0.69	0.6978
	1
	1
kddcup-rootkit 1 1 1 1 1 1 kddcup-rootkit 1 1 1 1 1 1 new-thyroid1 1 1 1 0.9995 1 new-thyroid1 1 1 1 0.9992 1	9 0.8375
kddcup-rootkit 1 1 1 1 1 1 kddcup-rootkit 1 1 1 1 1 1 new-thyroid1 1 1 1 0.9995 1 new-thyroid1 1 1 0.9992 1	
kddcup-rootkit 1 0.9992 1 pima 0.8307 0.8391 0.837 0.8387 0.8225 0.8395 pima 0.8371 0.8351 0.84 0.8383 0.83 vehicle0 0.9956 0.9955 0.9958 0.9957 0.9953 0.9955 vehicle0 0.9943 0.9943 0.9943 0.9944 0.9943	3 0.994
kddcup-rootkit 1 0.9992 1 pima 0.8307 0.8391 0.837 0.8387 0.8225 0.8395 pima 0.8371 0.8351 0.84 0.8383 0.8383 vehicle0 0.9956 0.9955 0.9958 0.9957 0.9953 0.9955 vehicle0 0.9943 0.994 0.9943 0.9944 0.994 winequality-red-8-vs-6 0.8451 0.8573 0.8388 0.8566 0.8665 0.8705 winequality-red-8-vs-6 0.8302 0.8324 0.8323 0.8503 0.8254	3 0.994 2 0.8553
kddcup-rootkit 1 0.9992 1 pima 0.8307 0.8371 0.8381 0.8383 0.8953 0.9955 pima 0.8371 0.8351 0.84 0.8943 0.9943 winequality-red-8-vs-6 0.8451 0.8573 0.8388 0.8566 0.8665 0.8705 winequality-red-8-vs-6 0.8302 0.8321 0.8323 0.8503 0.8253	0.994 02 0.8553 05 0.9083