

Table 10.1: The T2DM Sensitivity and Specificity of Original Removal Edges Feature

A. T2DM Sensitivity							
	SVMl	SVMnl	GNB	KNN	DT	RF	GCN
Gene expression	Rank 3	Rank 4	Rank 6	Rank 2	Rank 7	Rank 5	Rank 1
Netpro2vecMetgraphs	0.992	0.985	0.962	1	0.963	0.969	1
Netpro2vecNDD	0.985	0.985	0.977	1	0.970	0.955	1
Netpro2vecTM1	1	0.977	0.969	1	0.955	1	1
Netpro2vecTM2	1	1	0.697	1	0.857	0.939	1
Netpro2vecNDD+TM1	1	1	0.977	1	0.962	0.992	1
Netpro2vecNDD+TM1+TM2	1	1	0.727	0.947	0.859	0.918	1
Graph2Vec	0.969	0.977	0.969	0.969	0.969	0.969	1
GL2Vec	0.962	0.977	0.969	0.962	0.962	0.962	1
FeatherGraph	0.985	0.659	0.766	0.699	0.593	0.743	0.833

B. T2DM Specitivity							
	SVMl	SVMnl	GNB	KNN	DT	RF	GCN
Gene expression	Rank 3	Rank 4	Rank 6	Rank 2	Rank 7	Rank 5	Rank 1
Netpro2vecMetgraphs	0.992	0.985	0.962	1	0.963	0.969	1
Netpro2vecNDD	0.985	0.985	0.977	1	0.970	0.955	1
Netpro2vecTM1	1	0.992	0.969	1	0.955	1	1
Netpro2vecTM2	1	1	0.697	1	0.857	0.939	0.954
Netpro2vecNDD+TM1	1	1	0.977	1	0.962	0.992	1
Netpro2vecNDD+TM1+TM2	1	1	0.727	0.947	0.851	0.918	1
Graph2Vec	0.969	0.977	0.962	0.969	0.969	0.969	1
GL2Vec	0.962	0.977	0.969	0.962	0.969	0.962	1
FeatherGraph	0.779	0.677	0.876	0.699	0.593	0.743	1

Table 10.2: The non-T2DM Sensitivity and Specificity of Original Removal Edges Feature

A. non-T2DM Sensitivity							
	SVMl	SVMnl	GNB	KNN	DT	RF	GCN
Gene expression	Rank 3	Rank 2	Rank 7	Rank 6	Rank 5	Rank 4	Rank 1
Netpro2vecMetgraphs	0.962	0.946	0.877	0.931	0.908	0.931	1
Netpro2vecNDD	0.969	0.962	0.871	0.938	0.931	0.931	1
Netpro2vecTM1	0.969	0.946	0.847	0.923	0.916	0.931	1
Netpro2vecTM2	0.939	0.848	0.789	0.849	0.862	0.782	1
Netpro2vecNDD+TM1	0.969	0.954	0.809	0.908	0.932	0.938	1
Netpro2vecNDD+TM1+TM2	0.925	0.833	0.811	0.909	0.887	0.826	1
Graph2Vec	0.969	0.969	0.892	0.923	0.908	0.931	1
GL2Vec	0.915	0.915	0.908	0.908	0.915	0.915	1
FeatherGraph	0.878	0.554	0.841	0.770	0.809	0.732	1

B. non-T2DM Specitivity							
	SVMl	SVMnl	GNB	KNN	DT	RF	GCN
Gene expression	Rank 2	Rank 3	Rank 7	Rank 4	Rank 6	Rank 5	Rank 1
Netpro2vecMetgraphs	0.962	0.946	0.877	0.931	0.908	0.931	1
Netpro2vecNDD	0.969	0.962	0.871	0.938	0.931	0.931	1
Netpro2vecTM1	0.969	0.946	0.847	0.923	0.916	0.931	1
Netpro2vecTM2	0.931	0.848	0.789	0.849	0.862	0.789	1
Netpro2vecNDD+TM1	0.969	0.954	0.809	0.916	0.932	0.938	1
Netpro2vecNDD+TM1+TM2	0.939	0.834	0.811	0.916	0.887	0.826	1
Graph2Vec	0.969	0.969	0.900	0.909	0.908	0.931	1
GL2Vec	0.915	0.915	0.908	0.908	0.915	0.915	1
FeatherGraph	0.862	0.554	0.841	0.770	0.809	0.733	1

Table 10.3: The Healthy Sensitivity and Specificity of Original Removal Edges Feature

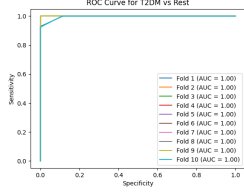
A. Healthy Sensitivity

	SVMl	SVMnl	GNB	KNN	DT	RF	GCN
Gene expression	Rank 2	Rank 6	Rank 5	Rank 4	Rank 3	Rank 7	Rank 1
Netpro2vecMetgraphs	0.970	0.708	0.774	0.947	0.939	0.853	1
Netpro2vecNDD	0.963	0.731	0.797	0.948	0.931	0.926	1
Netpro2vecTM1	0.977	0.813	0.832	0.969	0.970	0.889	1
Netpro2vecTM2	0.962	0.940	0.864	0.842	0.765	0.872	1
Netpro2vecNDD+TM1	0.969	0.715	0.751	0.947	0.948	0.834	1
Netpro2vecNDD+TM1+TM2	0.962	0.912	0.871	0.774	0.760	0.841	1
Graph2Vec	0.910	0.708	0.949	0.954	0.932	0.932	1
GL2Vec	0.829	0.755	0.954	0.946	0.976	0.909	1
FeatherGraph	0.637	0.848	0.441	0.598	0.568	0.774	0.909

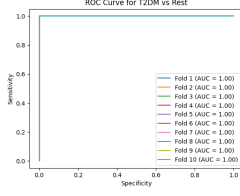
B. Healthy Specitivity

	SVMl	SVMnl	GNB	KNN	DT	RF	GCN
Gene expression	Rank 2	Rank 6	Rank 5	Rank 4	Rank 3	Rank 7	Rank 1
Netpro2vecMetgraphs	0.970	0.708	0.773	0.947	0.939	0.853	1
Netpro2vecNDD	0.963	0.731	0.797	0.931	0.931	0.926	1
Netpro2vecTM1	0.977	0.813	0.832	0.969	0.970	0.889	1
Netpro2vecTM2	0.962	0.940	0.864	0.812	0.783	0.872	1
Netpro2vecNDD+TM1	0.969	0.715	0.751	0.954	0.948	0.834	1
Netpro2vecNDD+TM1+TM2	0.962	0.912	0.871	0.774	0.760	0.841	1
Graph2Vec	0.910	0.769	0.949	0.954	0.932	0.932	1
GL2Vec	0.829	0.755	0.954	0.946	0.977	0.909	1
FeatherGraph	0.637	0.848	0.441	0.599	0.568	0.766	0.966

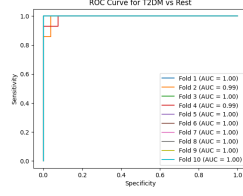
1 ROC Chart for the T2DM Original Removal Edges Feature Including Ranking Order



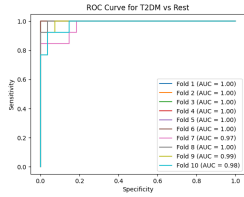
(a) KNN/Rank 2



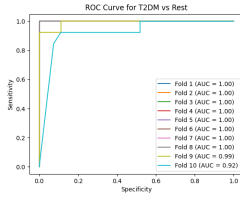
(b) SVMl/Rank 3



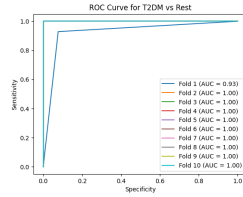
(c) SVMnl/Rank 4



(d) RF/Rank 5

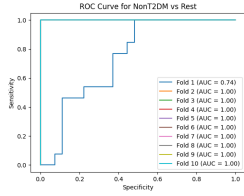


(e) GNB/Rank 6

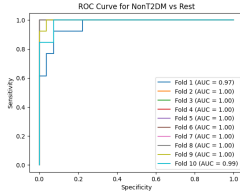


(f) DT/Rank 7

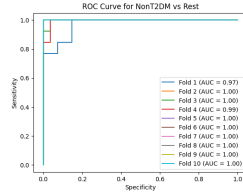
2 ROC Chart for the non-T2DM Original Removal Edges Feature Including Ranking Order



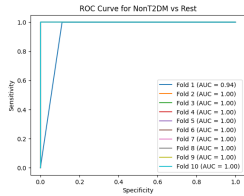
(a) SVMnl/Rank 2



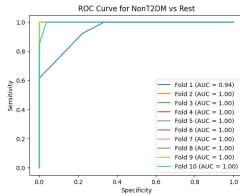
(b) SVMl/Rank 3



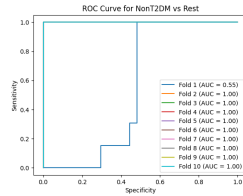
(c) RF/Rank 4



(d) DT/Rank 5

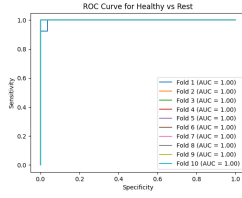


(e) KNN/Rank 6

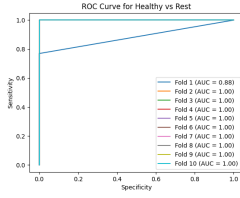


(f) GNB/Rank 7

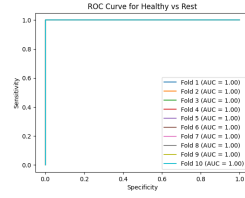
3 ROC Chart for the Healthy Original Removal Edges Feature Including Ranking Order



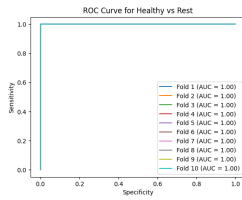
(a) SVMl/Rank 2



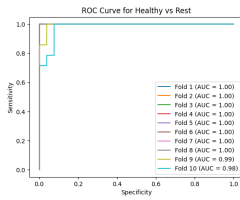
(b) DT/Rank 3



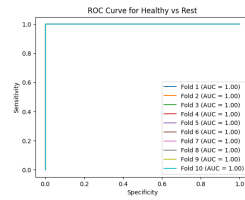
(c) KNN/Rank 4



(d) GNB/Rank 5



(e) SVMnl/Rank 6



(f) RF/Rank 7