Table 6.1: **Table T2DM Sensitivity and Specificity within Original Features**

A. T2DM Sensitivity							
	SVMl	**SVMnl**	**GNB**	**KNN**	**DT**	**RF**	**GCNs**
Gene expression	Rank 2	Rank 5	Rank 7	Rank 3	Rank 4	Rank 6	Rank 1
Netpro2vecMetgraphs	0.992	0.977	0.954	**1**	0.962	0.954	**1**
Netpro2vecNDD	0.992	0.954	0.954	0.992	0.962	**0.962**	**1**
Netpro2vecTM1	0.977	0.946	**0.962**	**1**	0.954	0.931	**1**
Netpro2vecTM2	0.992	0.849	0.660	0.917	0.896	0.917	**1**
Netpro2vecNDD+TM1	**1**	**0.962**	0.931	0.969	0.934	0.938	**1**
Netpro2vecNDD+TM1+TM2	**1**	0.902	0.646	0.948	0.852	0.838	**1**
Graph2Vec	0.962	0.954	0.954	0.954	0.953	0.946	**1**
GL2Vec	0.954	0.954	**0.962**	0.954	**0.969**	0.946	**1**
FeatherGraph	0.735	0.677	0.397	0.598	0.582	0.517	**1**
SF	0.992	0.781	0.722	0.744	0.699	0.715	0.888

B. T2DM Specitivity							
	SVMl	**SVMnl**	**GNB**	**KNN**	**DT**	**RF**	**GCNs**
Gene expression	Rank 2	Rank 5	Rank 7	Rank 3	Rank 4	Rank 6	Rank 1
Netpro2vecMetgraphs	0.992	0.977	0.954	**1**	0.962	0.954	**1**
Netpro2vecNDD	0.992	0.954	0.954	0.992	0.962	**0.962**	**1**
Netpro2vecTM1	0.977	0.946	**0.962**	**1**	0.954	0.931	**1**
Netpro2vecTM2	0.992	0.849	0.664	0.917	0.950	0.917	**1**
Netpro2vecNDD+TM1	**1**	**0.962**	0.954	0.969	0.934	0.938	**1**
Netpro2vecNDD+TM1+TM2	**1**	0.902	0.646	0.948	0.852	0.838	**1**
Graph2Vec	0.962	0.954	0.954	0.954	0.953	0.946	**1**
GL2Vec	0.954	0.954	**0.962**	0.954	**0.969**	0.946	0.954
FeatherGraph	0.735	0.677	0.397	0.598	0.582	0.517	**1**
SF	0.992	0.781	0.722	0.744	0.699	0.715	0.955

Table 6.2: Table non-T2DM Sensitivity and Specitivity within Original Features

A. non-T2DM Sensitivity							
	SVMl	**SVMnl**	**GNB**	**KNN**	**DT**	**RF**	**GCNs**
Gene expression	Rank 2	Rank 3	Rank 7	Rank 6	Rank 4	Rank 5	Rank 1
Netpro2vecMetgraphs	0.954	**0.969**	0.869	**0.938**	**0.940**	**0.939**	**1**
Netpro2vecNDD	0.946	0.962	0.862	**0.938**	0.909	0.894	**1**
Netpro2vecTM1	**0.977**	0.938	0.802	0.908	0.893	0.771	**1**
Netpro2vecTM2	0.926	0.691	**0.898**	0.494	0.828	0.781	**1**
Netpro2vecNDD+TM1	**0.977**	0.946	0.779	0.915	0.885	0.788	**1**
Netpro2vecNDD+TM1+TM2	0.911	0.699	0.502	0.848	0.789	0.796	**1**
Graph2Vec	0.892	0.869	0.838	0.9	0.854	0.885	**1**
GL2Vec	0.908	0.892	0.892	0.885	0.877	0.908	0.909
FeatherGraph	0.855	0.532	0.841	0.770	0.809	0.733	**1**
SF	0.695	0.568	0.558	0.741	0.741	0.725	0.909

B. non-T2DM Specitivity							
	SVMl	**SVMnl**	**GNB**	**KNN**	**DT**	**RF**	**GCNs**
Gene expression	Rank 2	Rank 3	Rank 7	Rank 6	Rank 4	Rank 5	Rank 1
Netpro2vecMetgraphs	0.954	**0.969**	0.869	**0.938**	**0.940**	**0.939**	**1**
Netpro2vecNDD	0.946	0.961	0.862	**0.938**	0.909	0.894	**1**
Netpro2vecTM1	**0.977**	0.938	0.802	0.908	0.893	0.771	**1**
Netpro2vecTM2	0.926	0.691	**0.898**	0.825	0.828	0.782	**1**
Netpro2vecNDD+TM1	0.977	0.946	0.779	0.915	0.885	0.788	**1**
Netpro2vecNDD+TM1+TM2	0.911	0.699	0.502	0.848	0.789	0.796	**1**
Graph2Vec	0.892	0.869	0.838	0.9	0.854	0.885	1
GL2Vec	0.908	0.892	0.892	0.885	0.877	0.908	**1**
FeatherGraph	0.855	0.532	0.841	0.770	0.809	0.733	**1**
SF	0.695	0.568	0.558	0.741	0.741	0.725	**1**

Table 6.3: Table Healthy Sensitivity and Specitivity within Original Features

A. Healthy Sensitivity							
	SVMl	**SVMnl**	**GNB**	**KNN**	**DT**	**RF**	**GCNs**
Gene expression	Rank 2	Rank 7	Rank 5	Rank 3	Rank 4	Rank 6	Rank 1
Netpro2vecMetgraphs	0.910	0.685	0.738	0.956	**0.947**	**0.919**	**1**
Netpro2vecNDD	0.873	0.669	0.707	**0.964**	0.903	0.869	**1**
Netpro2vecTM1	**0.977**	**0.784**	0.745	0.925	0.836	0.831	**1**
Netpro2vecTM2	0.895	0.765	0.842	0.900	0.714	0.690	0.909
Netpro2vecNDD+TM1	0.931	0.685	0.723	0.791	0.818	0.729	**1**
Netpro2vecNDD+TM1+TM2	0.940	0.641	0.827	0.699	0.751	0.544	0.818
Graph2Vec	0.887	0.707	0.926	0.932	0.882	0.887	**1**
GL2Vec	0.851	0.734	**0.946**	0.932	0.882	0.858	**1**
FeatherGraph	0.527	0.758	0.340	0.599	0.505	0.751	0.909
SF	0	0.5	0.599	0.476	0.469	0.645	0.909

B. Healthy Specitivity							
	SVMl	**SVMnl**	**GNB**	**KNN**	**DT**	**RF**	**GCNs**
Gene expression	**Rank 2**	**Rank 7**	**Rank 5**	**Rank 3**	**Rank 4**	**Rank 6**	**Rank 1**
Netpro2vecMetgraphs	0.910	0.685	0.738	0.956	**0.947**	**0.919**	**1**
Netpro2vecNDD	0.873	0.669	0.707	**0.964**	0.903	0.869	**1**
Netpro2vecTM1	**0.977**	**0.784**	0.745	0.925	0.836	0.831	**1**
Netpro2vecTM2	0.894	0.765	0.842	0.791	0.714	0.690	**1**
Netpro2vecNDD+TM1	0.931	0.685	0.723	0.859	0.818	0.729	**1**
Netpro2vecNDD+TM1+TM2	0.940	0.641	0.827	0.699	0.751	0.544	**1**
Graph2Vec	0.887	0.707	0.926	0.932	0.882	0.887	**1**
GL2Vec	0.851	0.734	**0.946**	0.932	0.882	0.858	**1**
FeatherGraph	0.527	0.758	0.340	0.599	0.505	0.751	**1**
SF	0	0.5	0.599	0.476	0.469	0.645	0.931

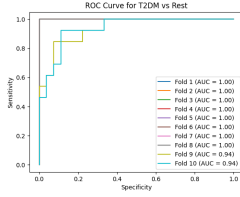# 1 ROC Chart for T2DM in Original Feature Including Ranking Order
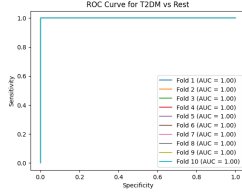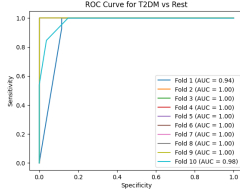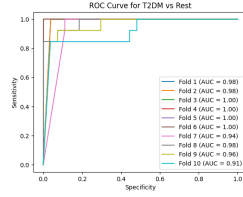

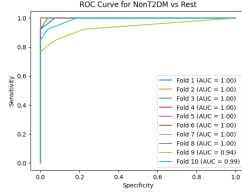
(a) SVMl/Rank 2
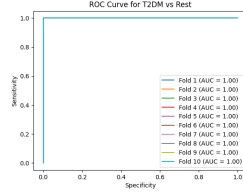
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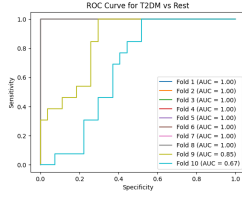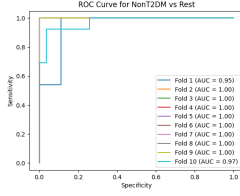
(c) DT/Rank 4
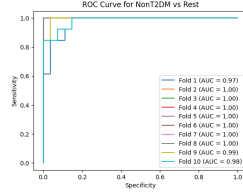
(d) SVMnl/Rank 5

(e) RF/Rank 6

(f) GNB/Rank 7

2 ROC Chart for non-T2DM in Original Feature Including Ranking Order
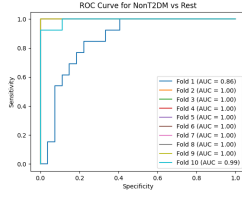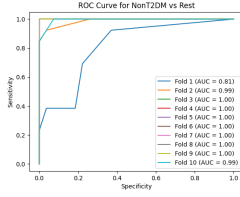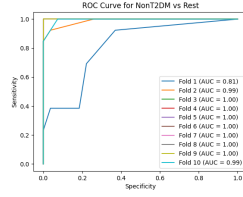

(a) SVMl/Rank 2
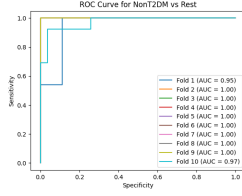
(b) SVMnl/Rank 3

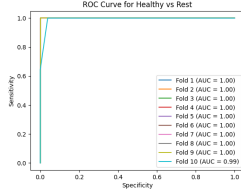(c) DT/Rank 4

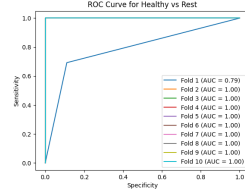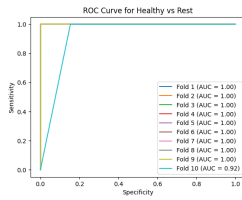(d) RF/Rank 5

(e) KNN/Rank 6

(f) GNB/Rank 7

3 ROC Chart for Healthy in Original Feature Including Ranking Order
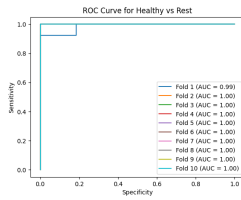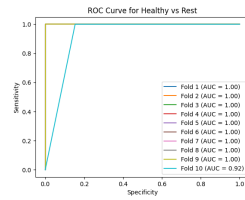

(a) SVMl/Rank 2

(b) KNN/Rank 3

(c) DT/Rank 4

(d) GNB/Rank 5

(e) RF/Rank 6

(f) SVMnl/Rank 7