

Table 11a:Accuracy Ranking for Perturbation with Original Features Data

Classification Models	Ranking Order	Underlying Graph within 400 Normalized Patient data	Scheme	Treshold	Dimension
GCN	1	Netpro2VecMetgraphs	minMax	1.80	196
SVM Linear (SVMl)	2	Netpro2VecTM1	minSum	1.80	196
KNN	3	Netpro2VecMetgraphs	minMax	1.80	196
Decission Tree (DT)	4	Netpro2VecTM1	minSum	2.80	128
		Netpro2VecNDD+TM1	minMax	2.80	196
Random Forest (RF))	5	GraphVec	minSum	1.80	64
Gaussian Naive Bayes (GNB)	6	Graph2Vec	minSum	1.80	196
		GL2Vec	meanSum	1.80	196
SVM Non Linear (SVMnl)	7	Netpro2VecTM1	minMax	2.80	196

Table 11b: Precision Ranking for Perturbation with Original Features Data

Classification Models	Ranking Order	Underlying Graph within 400 Normalized Patient Data	Scheme	Treshold	Dimension
GCN	1	Netpro2VecMetgraphs	minMax	1.80	196
		Netpro2VecNDD	meanSum	2.80	196
		Netpro2VecTM1	meanSum	2.80	196
		Netpro2VecNDD+TM1	meanSum	2.80	128
		GL2Vec	meanSum	1.80	196
SVM Linear (SVMl)	2	Netpro2VecTM1	minSum	1.80	196
KNN	3	Netpro2VecNDD	meanSum	2.80	196
Gaussian Naive Bayes (GNB)	4	GL2Vec	minSum	1.80	196
Decission Tree (DT)	5	Netpro2VecTM1	minSum	2.80	196
Random Forest (RF)	6	Graph2Vec	minSum	1.80	64
SVM Non Linear (SVMnl)	7	Netpro2VecTM1	minMax	2.80	196

Table 11c: Recall Ranking for Perturbation with Original Features Data

Classification Models	Ranking Order	Underlying Graph within 400 Normalized Patient Data	Scheme	Treshold	Dimension
GCN	1	Netpro2VecMetgraphs	minMax	1.80	196
		Netpro2VecNDD	meanSum	2.80	196
		Netpro2VecTM1	meanSum	2.80	196
		Netpro2VecNDD+TM1	meanSum	2.80	128
		Netpro2VecNDD+TM1	minMax	1.80	196
		GL2Vec	meanSum	1.80	196
SVM Linear (SVMl)	2	Netpro2VecNDD	minSum	2.80	196
		Netpro2VecNDD+TM1	minSum	2.80	196
KNN	3	Netpro2VecMetgraphs	minMax	1.80	196
Gaussian Naive Bayes (GNB)	4	GL2Vec	minSum	1.80	196
Random Forest (RF)	5	Graph2Vec	minSum	1.80	64
Decission Tree (DT)	6	GL2Vec	minSum	2.80	196
SVM Non Linear (SVMnl)	7	Netpro2TM1	minMax	2.80	196

Table 11d:F1 Score Ranking for Perturbation with Original Features Data

Classification Models	Ranking Order	Underlying Graph within 400 Normalized Patient Data	Scheme	Treshold	Dimension
GCN	1	Netpro2VecMetgraphs	minMax	1.80	196
		Netpro2VecNDD	meanSum	2.80	196
		Netpro2vecTM1	meanSum	2.80	196
		Netpro2VecNDD+TM1	meanSum	2.80	128
		Netpro2VecNDD+TM1	minMax	1.80	196
		GL2Vec	meanSum	1.80	128
SVM Linear (SVMl)	2	Netpro2VecTM1	minSum	1.80	196
KNN	3	Netpro2VecMetgraphs	minMax	1.80	196
Decission Tree (DT)	4	Netpro2VecNDD+TM1	minMax	2.80	196
Gaussian Naive Bayes (GNB)	5	GL2Vec	minSum	1.80	196
Random Forest (RF)	6	Graph2Vec	minSum	1.80	64
SVM Non Linear (SVMnl)	7	Netpro2VecTM1	minMax	2.80	196