	Cora	Citeseer	Pubmed
VSF	**71.32±0.70**	**60.96±0.68**	**48.27±0.51**
2-D Axis in Image	38.57 ± 1.22	33.29 ± 1.80	25.34 ± 0.95
Laplacian PE	55.14 ± 0.84	52.03 ± 1.17	46.80 ± 0.75
Distance	42.03 ± 0.82	56.65 ± 0.43	44.21 ± 0.36
Degree/Centrality	42.80 ± 1.52	44.15 ± 1.61	34.90 ± 1.23

Table A: Link prediction effectiveness of positional encodings (Hits@100). We adopt 2-GCN+2-MLP as the decoder.

	Cora	Citeseer
GCN	87.79±0.49	71.29±0.32
GCN+VSF	89.30±0.33	74.26±0.51

Table B: Node Classification Accuracy of GCN compared with GCN+VSF (%).

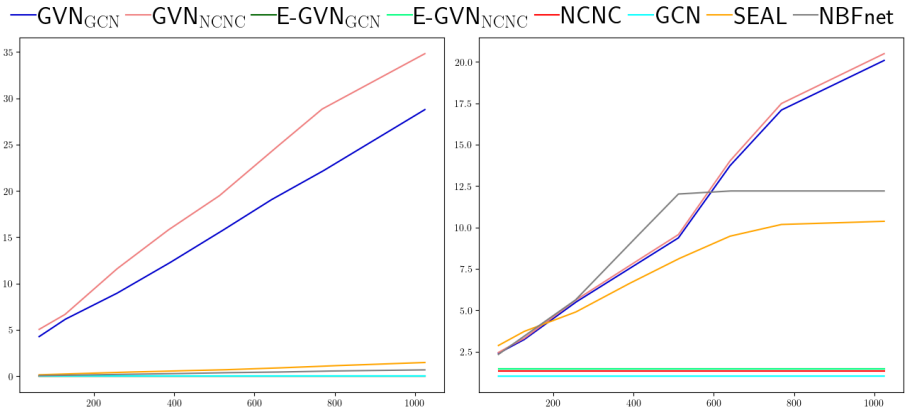

Figure A: Inference time and the use of GPU memory of different methods on Cora (linear scale axis).

# Node	100	500	1000	5000
GCN	1.91	18.88	80.35	1859.9836
E-GVN	5.02(3.56)	52.29(21.32)	187.61(44.28)	2065.44(76.56)
SEAL	459.38	9765.47	40257.88	-
GVN	4196.21(3448.96)	91527.96(78251.26)	-	-

Table C: Time scalability comparison (/s) on Erdos-Renyi graphs w.r.t. increasing node counts. O(VE) time contributions in E-GVN and GVN are explicitly listed in parentheses.

	fdp	dot	sfdp	neato	circo	twopi	osage
Hits@100	**91.56**	**91.54**	91.26	91.17	90.67	90.58	89.60

Table D: Link prediction performance of E-GVN on Cora with varying layout algorithms (Hits@100).