

Supplementary Material

Table S1. The OOD detection hyperparameter search for average pooling. Bold text denotes the best performance. AveragePool2D(j, k) represents embeddings that were 2D average pooled with kernel size j and stride k. Similar notation applies for 3D embeddings. For AUROC and AUPR, higher is better. For FPR75, lower is better. Calculation time is the time it takes to calculate the inverse of the covariance matrix in the Mahalanobis distance calculation in seconds.

Experiment	AUROC	AUPR	FPR75	Calculation Time
AveragePool2D(2, 1)	0.68	0.76	0.62	847.0839
AveragePool2D(2, 2)	0.66	0.77	0.69	135.6774
AveragePool2D(3, 1)	0.68	0.80	0.69	122.9558
AveragePool2D(3, 2)	0.62	0.71	0.54	2.2238
AveragePool2D(4, 1)	0.67	0.68	0.46	2.0272
AveragePool3D(2, 1)	0.57	0.69	0.77	582.2272
AveragePool3D(2, 2)	0.75	0.82	0.46	14.1437
AveragePool3D(3, 1)	0.61	0.68	0.62	60.6249
AveragePool3D(3, 2)	0.76	0.84	0.38	0.1450
AveragePool3D(4, 1)	0.70	0.75	0.31	0.5721

Table S2. The OOD detection hyperparameter search for PCA. Bold text denotes the best performance. PCA(n) represents PCA being performed with n components. For AUROC and AUPR, higher is better. For FPR75, lower is better. Computation time is the time it takes to calculate the inverse of the covariance matrix in the Mahalanobis distance calculation in seconds.

Experiment	AUROC	AUPR	FPR75	Computation Time
PCA(2)	0.90	0.93	0.07	0.0001
PCA(4)	0.70	0.66	0.38	0.0002
PCA(8)	0.73	0.74	0.46	0.0003
PCA(16)	0.87	0.87	0.23	0.0004
PCA(32)	0.86	0.88	0.23	0.0005
PCA(64)	0.82	0.85	0.23	0.0005
PCA(128)	0.89	0.93	0.15	0.0011
PCA(256)	0.93	0.94	0.14	0.0106

Table S3. The OOD detection hyperparameter search for UMAP. Bold text denotes the best performance. UMAP(n) represents UMAP being performed with n components. For AUROC and AUPR, higher is better. For FPR75, lower is better. Computation time is the time it takes to calculate the inverse of the covariance matrix in the Mahalanobis distance calculation in seconds. All results are the average (\pm SD), n=10.

Experiment	AUROC	AUPR	FPR75	Computation Time
UMAP(2)	0.79 (\pm0.05)	0.85 (\pm0.04)	0.36 (\pm0.13)	0.0002 (\pm 0.0000)
UMAP(4)	0.76 (\pm 0.06)	0.83 (\pm 0.04)	0.46 (\pm 0.14)	0.0002 (\pm 0.0000)
UMAP(8)	0.74 (\pm 0.06)	0.83 (\pm 0.04)	0.43 (\pm 0.20)	0.0002 (\pm 0.0001)
UMAP(16)	0.71 (\pm 0.06)	0.80 (\pm 0.04)	0.51 (\pm 0.17)	0.0001 (\pm 0.0001)
UMAP(32)	0.71 (\pm 0.04)	0.80 (\pm 0.03)	0.42 (\pm 0.10)	0.0002 (\pm 0.0001)
UMAP(64)	0.69 (\pm 0.05)	0.79 (\pm 0.03)	0.46 (\pm 0.14)	0.0003 (\pm 0.0000)
UMAP(128)	0.64 (\pm 0.05)	0.76 (\pm 0.02)	0.64 (\pm 0.15)	0.1372 (\pm 0.1390)
UMAP(256)	0.62 (\pm 0.06)	0.75 (\pm 0.03)	0.69 (\pm 0.15)	0.3558 (\pm 0.2820)