

Graph Machine for Paper Classification in Citation Network

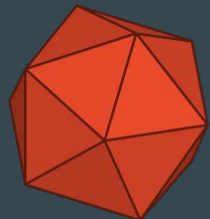
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Tools



PyTorch



PyTorch

geometric



TORCH SPARSE

Models

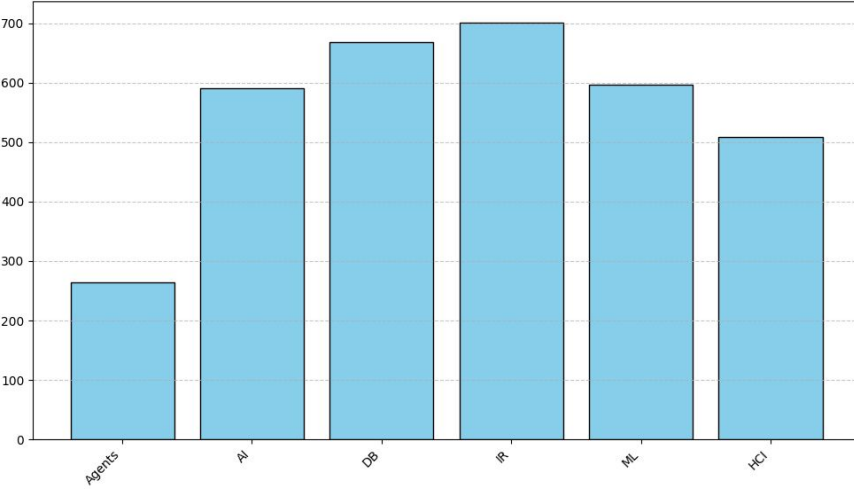
GCN

GAT

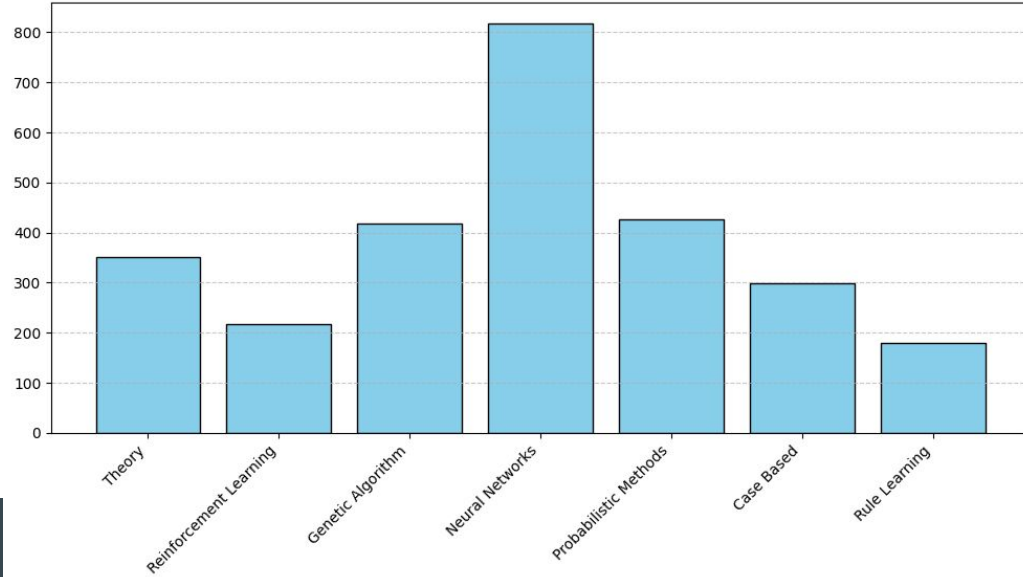
SSP

Datasets

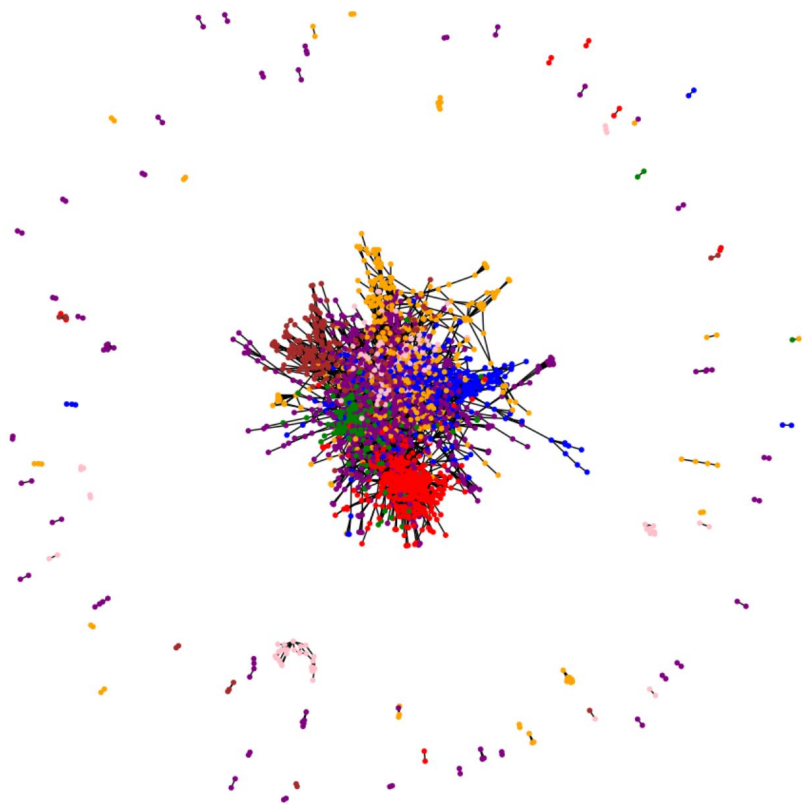
Citeseer class distribution



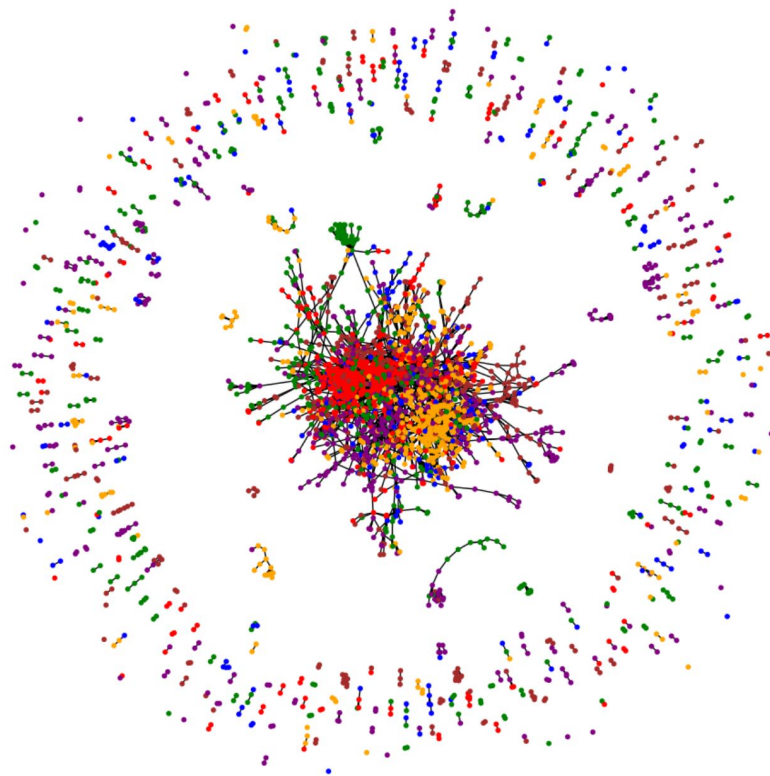
Cora class distribution



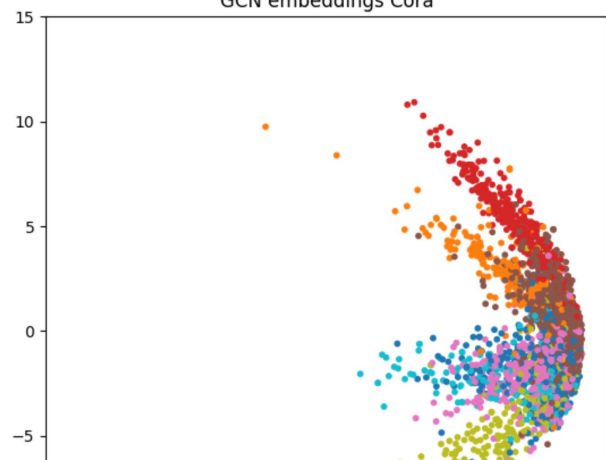
Cora Citation Network with Node Classes



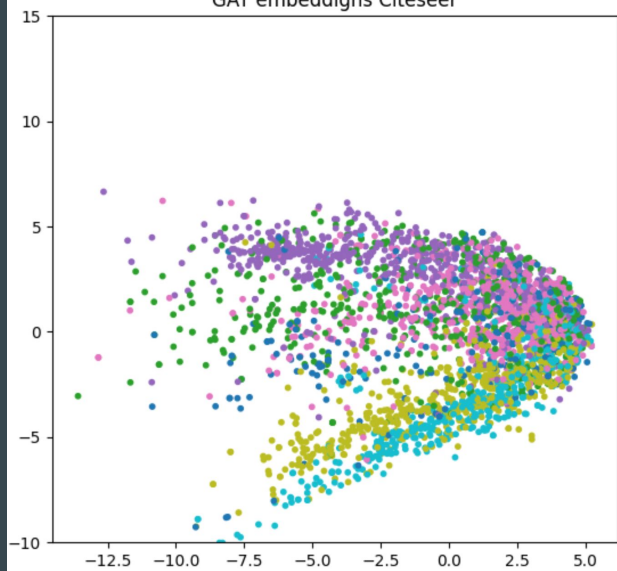
Citeseer Network with Node Classes



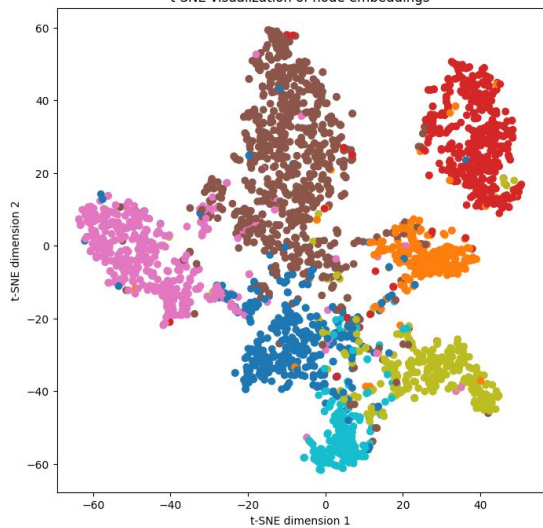
GCN embeddings Cora



GAT embeddings Citeseer



t-SNE visualization of node embeddings

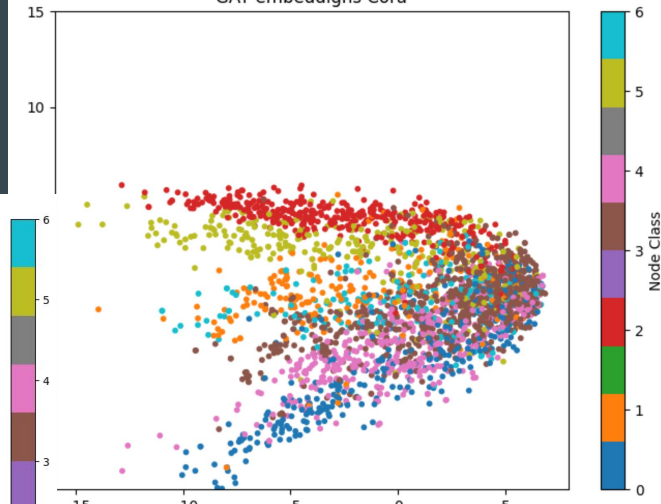


Node Class

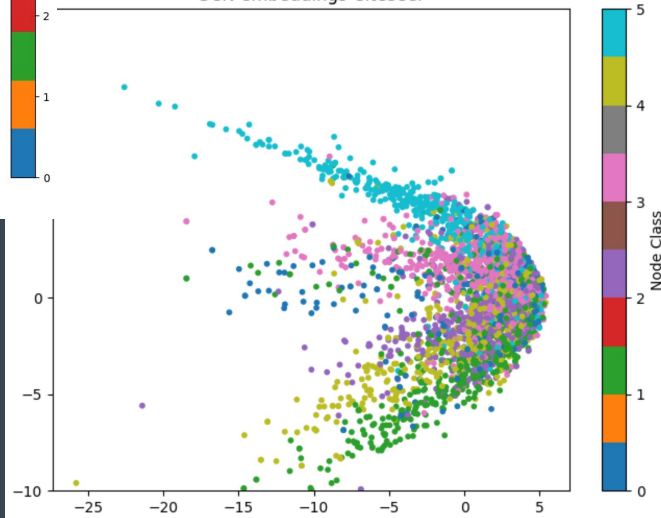


Node Class

GAT embeddings Cora



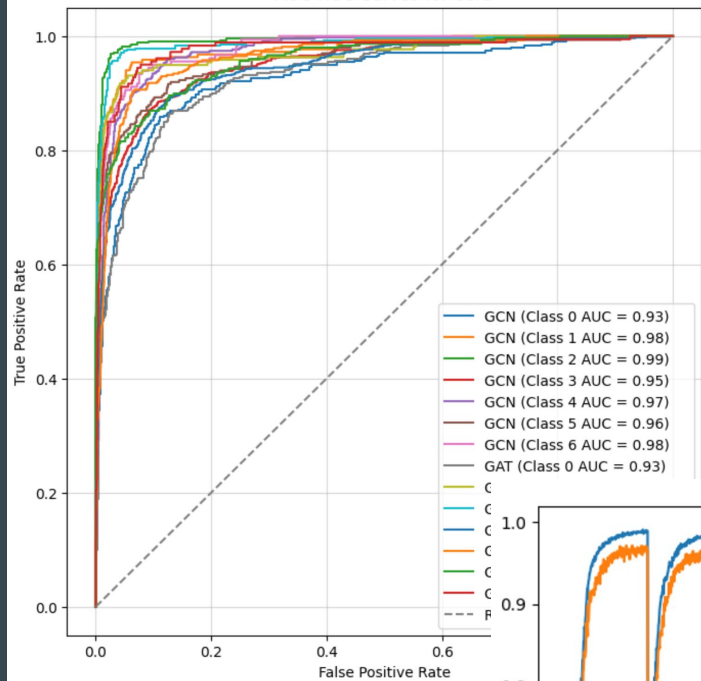
GCN embeddings Citeseer



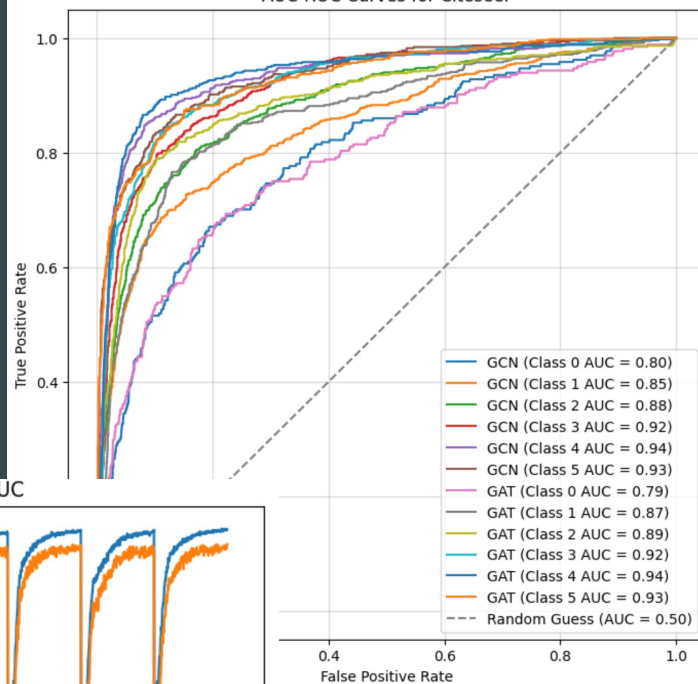
Node Class

ROC-AUC

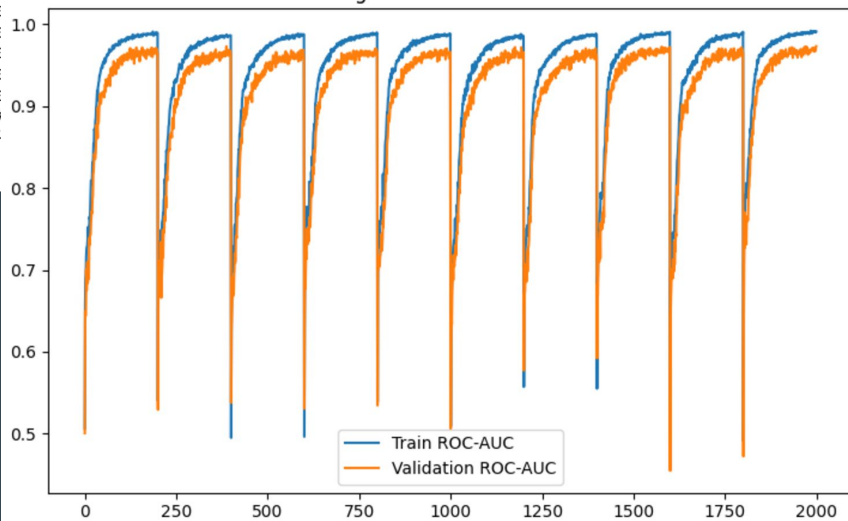
AUC-ROC Curves for Cora



AUC-ROC Curves for Citeseer



Training and Validation ROC-AUC



Model Performance Comparison

