Evaluating GNNs for Bioinformatics Applications

Graph Neural Networks are being integrated into bioinformatics pipelines for tasks like drug-target interaction prediction and protein folding.

Methodologies:

Hierarchical GNNs, multi-view GNNs, and hybrid models combining convolutional and graph layers are under exploration.

Datasets:

BioSNAP and DrugBank datasets provide curated graphs for drug-target networks and interaction maps.

Performance:

While GNNs provide promising results, challenges such as dataset imbalance, limited labeled data, and high computational cost need to be addressed for real-world deployment.