Settings

MLflow endpoint URL (must end with `/invocations`)

https://localhost:51120/invo

Steps

- [x] Extract
- [x] Analyze
- [ ] Script

Prompts

Analysis prompt

Summarise the content in En

Initial script prompt (leave blank to use the default)

You are an academic writing assistant. Produce

Paper-to-Script Demo

Generate summaries or short presentation scripts from scientific papers hosted on arXiv.org.

Search articles on arXiv

Search term

graph neural networks

Number of articles	Chunk size	Chunk overlap
3	1200	400

Run

Articles | Summary | Script

A Survey on Graph Classification and Link Prediction based on GNN

1 A Survey on Graph Classification and Link Prediction based on GNN Xingyu Liu Juan Chen Quan Wen School of Computer Science and Engineering University of Electronic Science and Technology of China Chengdu, Sichuan, 611730, P.R. China Abstract: Traditional convolutional neural networks are limited to handling Euclidean space data, overlooking the vast realm of real-life scenarios represented as graph data, including transportation networks, social networks, and reference networks. The pivotal step in transferring convolutional neural networks to graph data analysis and processing lies in the construction of graph convolutional operators and graph pooling operators. This comprehensive review article delves into the world of graph convolutional neural networks. Firstly, it elaborates on …

Graph Structure of Neural Networks

Graph Structure of Neural Networks Jiaxuan You 1 Jure Leskovec 1 Kaiming He 2 Saining Xie 2 Abstract Neural networks are often represented as graphs of connections between neurons. However, de- spite their wide use, there is currently little un- derstanding of the relationship between the graph structure of the neural network and its predictive performance. Here we systematically investigate how does the graph structure of neural networks affect their predictive

performance. To this end, we develop a novel graph-based representation of neural networks called relational graph, where layers of neural network computation correspond to rounds of message exchange along the graph structure. Using this representation we show that: (1) a sweet spot of relational graphs leads to neural networks …

Sampling and Recovery of Graph Signals based on Graph Neural Networks

1 Sampling and Recovery of Graph Signals based on Graph Neural Networks Siheng Chen∗Member, IEEE, Maosen Li∗Student Member, IEEE, Ya Zhang Member, IEEE, Abstract—We propose interpretable graph neural networks for sampling and recovery of graph signals, respectively. To take informative measurements, we propose a new graph neural sam- pling module, which aims to select those vertices that maximally express their corresponding neighborhoods. Such expressiveness can be quantified by the mutual information between vertices' features and neighborhoods' features, which are estimated via a graph neural network. To reconstruct an original graph signal from the sampled measurements, we propose a graph neural re- covery module based on the algorithm-unrolling technique, which transforms each …

✓ Completed in 24.9s