MEIXIU LONG

 $\mathcal{J}(+86)$ 15918835083 $\diamond \square$ longmx7@mail2.sysu.edu.cn



OBJECTIVE

A joint Ph.D. training program as a visiting student for one year with CSC scholarship.

EDUCATION

Sun Yat-sen University, Guangzhou, China

o or or or o

Sept. 2021 - June 2026 (Expected)

The third-year Ph.D. candidate in Computer Science

Advisor: Prof. Jiahai Wang

Chongqing University, Chongqing, China

Sept. 2017 - June 2021

B.Eng. in Computer Science

GPA: 3.47/4.0, 86.17/100 (Top 15%)

Postgraduate Recommendation, Outstanding Graduate

RESEARCH INTEREST

Graph Deep Learning: graph neural networks (GNNs), graph structure learning, graph prompting, out-of-distribution generalization, explainability in GNNs.

Data Mining: network alignment, knowledge fusion.

More specifically, I have worked on:

Imbalanced Graph Representation Learning for Network Alignment.

Background: Network Alignment (NA) aims to identify pairs of anchor nodes that represent the same entities across networks. Prior works rarely consider the structural imbalance in long-tailed social networks, where limited or noisy neighborhoods may lead to biased node representations.

Contribution: a) We observe that the performance of NA is limited by low-degree nodes and super high-degree nodes. b) Low-degree nodes are enriched and super high-degree nodes are refined by correcting their neighborhoods. c) Empirical results demonstrate the advantages of our method in aligning complex long-tailed entities.

Local Adaptation by Meta-learning

Background: Prior NA methods train a global mapping to unify different embedding spaces. However, the global mapping is a holistic solution for training data, failing to distinguish nodes located in regions with different densities and project each node optimally.

Contribution: a) We tailor local mappings for nodes by meta-learning, without losing general knowledge of global mapping. b) To solve the paradigm incompatibility of zero-shot NA versus meta-learning, we construct node-level meta-tasks with locally-adaptive support sets. c) Experimental results show that the model-agnostic local mapping framework can outperform global mapping models by 1%-59%.

PUBLICATION

- [1] **Meixiu Long**, Siyuan Chen, Xin Du, and Jiahai Wang. "DegUIL: Degree-Aware Graph Neural Networks for Long-Tailed User Identity Linkage". *The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD 2023)* [PDF]
- [2] **Meixiu Long**, Siyuan Chen, and Jiahai Wang. "Locally-adaptive Mapping for Network Alignment via Meta-learning". Under review at *Information Processing and Management (IPM 2024)* [PDF]
- [3] Zitong Zhu, **Meixiu Long**, Junfa Lin and Jiahai Wang. "Sequential Recommendation with Diverse Supervised Contrastive Views". Under review at *International Joint Conference on Artificial Intelligence (IJCAI 2024)*

AWARDS

The First-Class Scholarship for Graduate Students, Sun Yat-sen University Fall 2023 Outstanding Graduate of Chongqing University Spring 2021 National Scholarship for Encouragement (Top 6%) Spring 2020 First Prize of China Undergraduate Mathematical Contest in Modeling in Chongqing (Top 10%) 2019 Undergraduate Scholarship for 5 times (First-Class*1, Second-Class*3, Third-Class*1) 2018-2021

TEACHING ASSISTANT

DCS311: Artificial Intelligence (Spring, 2023)

DCS315: Experiments of Artificial Intelligence (Spring, 2023)

TECHNICAL SKILLS

- Software & Programming Languages: Python, Pytorch, Latex, C++.
- Language: Chinese (Native), English (CET-6).
- Others: AxGlyph (Scientific Drawing)