# MEIXIU LONG

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## EDUCATION

**Sun Yat-sen University**, Guangzhou, China The fourth-year Ph.D. candidate in Computer Science Advisor: Prof. Jiahai Wang

Chongqing University, Chongqing, ChinaB.Eng. in Computer ScienceGPA: 3.47/4.0, 86.17/100 (Top 15%)Postgraduate Recommendation, Outstanding Graduate

#### **RESEARCH INTEREST**

**Deep Graph 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 and super high-degree nodes are enriched and refined respectively 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". Information Processing and Management (IPM 2024) [PDF]
- [3] Zitong Zhu, Meixiu Long, Junfa Lin and Jiahai Wang. "Sequential Recommendation with Diverse Supervised Contrastive Views". International Conference on Advanced Data Mining and Applications (ADMA 2024)

Sept. 2021 - June 2026 (Expected)

Sept. 2017 - June 2021

## AWARDS

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

### TECHNICAL SKILLS

- Software & Programming Languages: Python, Pytorch, Latex, C++.
- Language: Chinese (Native), English (IELTS 6.5, CET-6).
- Others: AxGlyph (Scientific Drawing)