

Peiyan, Zhang

CONTACT INFORMATION	<div>Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong Tel: 852-52602547 E-mail: pzhangao@connect.ust.hk</div>	<div>Personal Web LinkedIn Google Scholar</div>
RESEARCH INTERESTS	<div><ul style="list-style-type: none"><li>• Deep Learning on Graphs</li><li>• Data-Centric AI, Data-Efficient Learning</li><li>• Trustworthy AI: Robustness, Interpretability, Privacy, and Fairness</li><li>• Large Language Models and Multi-Agent Systems</li><li>• AI for Science and Interdisciplinary Applications</li></ul></div>	
EDUCATION	<div><div><b>The Hong Kong University of Science and Technology, Hong Kong</b><ul style="list-style-type: none"><li>• Ph.D., Computer Science and Engineering</li><li>• Supervisor: Prof. Yangqiu Song</li></ul></div><div><b>Beijing Institute of Technology, China</b><ul style="list-style-type: none"><li>• Bachelor of Science, Computer Science, <b>GPA: 3.94/4.0, Ranking: 1/193</b></li></ul></div></div>	<div>08/2020 – 07/2025  09/2016 – 07/2020</div>
INTERSHIP EXPERIENCE	<div><div><b>University of Illinois Urbana-Champaign, USA</b> Research Collaboration with Prof. Haohan Wang</div><div><b>Microsoft Software Technology Center Asia, Beijing</b> Research Intern</div><div><b>Beijing Academy of Artificial Intelligence, Beijing</b> Research Intern</div><div><b>Microsoft Research Asia, Beijing</b> Research Intern</div></div>	<div>08/2022 – Present  05/2024 – 05/2025  06/2023 – 12/2023  03/2022 – 04/2023</div>
HONORS AND AWARDS	<div><ul style="list-style-type: none"><li>• Excellence in Review Award by Future Generation Computer Systems (FGCS)</li><li>• ACM SIGIR Student Travel Grant for SIGIR 2024</li><li>• <b>Winners of Amazon KDD Cup 2023 Challenge (3rd Place in the World)</b></li><li>• Award of Excellence of Stars of Tomorrow Internship Program in Microsoft Research Asia (Top 10%)</li><li>• <b>Best Paper Award - Honorable Mention in WSDM 2023</b></li><li>• HKUST RedBird PhD Scholarship</li><li>• Graduate Excellence Award of Beijing (top 1%)</li><li>• National Scholarship for 2018-2019 Academic Year (top 0.2%)</li><li>• National Scholarship for 2017-2018 Academic Year (top 0.2%)</li><li>• National Scholarship for 2016-2017 Academic Year (top 0.2%)</li><li>• Honorable Mention in Mathematical Contest in Modeling/Interdisciplinary Contest in Modeling</li><li>• First-class Scholarship (for six semesters)</li><li>• First Prize of Dots and Boxes Project in the 13th China Computer Game Championship</li><li>• Third Place in the Simulation Game of the Medium Size Group in 2018 China Robot Competition</li></ul></div>	<div>2025 2024 2023 2023 2023 2020 2020 2019 2018 2017 2019 2019 2019 2018</div>

## PUBLICATION

### GoogleScholar:

[https://scholar.google.com/citations?hl=en&user=A1\\_FpIcAAAAJ&view\\_op=list\\_works](https://scholar.google.com/citations?hl=en&user=A1_FpIcAAAAJ&view_op=list_works)

- Impact: 500+citations, h-index: 12

### Journal Papers

\* indicates equal contribution

- “Advancing Session-Based Recommendations with Atten-Mixer+: Dynamic and Adaptive Multi-Level Intent Mining”  
Juyong Jiang\*, **Peiyan Zhang\***, Yingtao Luo, Chaozhao Li, Jae Boum Kim, Kai Zhang, Senzhang Wang, Sunghun Kim, Philip S. Yu.  
*IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2025.
- “Improving Sequential Recommendations via Bidirectional Temporal Data Augmentation With Pre-Training”  
**Peiyan Zhang**, Jiayan Guo, Chaozhao Li, Liying Kang, Jaeboum Kim, Jie Xu, Xi Zhang, Yan Zhang, Haohan Wang, Sunghun Kim.  
*ACM Transactions on Intelligent Systems and Technology (TIST)*, 2024.

### Conference Papers

\* indicates equal contribution

- “Revolve: Optimizing AI Systems by Tracking Response Evolution in Textual Optimization”  
**Peiyan Zhang**, Haibo Jin, Leyang Hu, Xinnuo Li, Liying Kang, Man Luo, Yangqiu Song, Haohan Wang.  
*International Conference on Machine Learning (ICML)*, 2025.
- “Foundation Model-oriented Robustness: Robust Image Model Evaluation with Pretrained Models”  
**Peiyan Zhang**, Haoyang Liu, Chaozhao Li, Xing Xie, Sunghun Kim, Haohan Wang.  
*International Conference on Learning Representations (ICLR)*, 2024.
- “GPT4Rec: Graph Prompt Tuning for Streaming Recommendation”  
**Peiyan Zhang**, Yuchen Yan, Chaozhao Li, Liying Kang, Xi Zhang, Feiran Huang, Senzhang Wang, Sunghun Kim.  
*International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, 2024. [Oral]
- “TransGNN: Harnessing the Collaborative Power of Transformer and Graph Neural Network for Recommender Systems”  
**Peiyan Zhang**, Yuchen Yan, Chaozhao Li, Xi Zhang, Senzhang Wang, Feiran Huang, Xing Xie, Sunghun Kim.  
*International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, 2024. [Oral]
- “High-Frequency-aware Hierarchical Contrastive Selective Coding for Representation Learning on Text Attributed Graphs”  
**Peiyan Zhang**, Chaozhao Li, Liying Kang, Feiran Huang, Senzhang Wang, Xing Xie, Sunghun Kim.  
*International World Wide Web Conference (WWW)*, 2024. [Oral]
- “Inductive Graph Alignment Prompt: Bridging the Gap between Graph Pre-training and Inductive Fine-tuning From Spectral Perspective”  
Yuchen Yan\*, **Peiyan Zhang\***, Zheng Fang, QingQing Long.  
*International World Wide Web Conference (WWW)*, 2024. [Oral]
- “A Comprehensive Study on Text-attributed Graphs: Benchmarking and Rethinking”  
J Hao Yan, Chaozhao Li, Ruosong Long, Chao Yan, Jianan Zhao, Wenwen Zhuang, Jun Yin, **Peiyan Zhang**, Weihao Han, Hao Sun, Weiwei Deng, Qi Zhang, Lichao Sun, Xing Xie, Senzhang Wang.  
*Advance in Neural Information Processing Systems (NeurIPS)*, 2023.
- “AdaMCT: Adaptive Mixture of CNN-Transformer for Sequential Recommendation”  
Juyong Jiang\*, **Peiyan Zhang\***, Yingtao Luo, Chaozhao Li, Jaeboum Kim, Kai Zhang, Senzhang Wang, Xing Xie and Sunghun Kim.

*International Conference on Information and Knowledge Management (CIKM)*, 2023. **[Oral]**

- “Continual Learning on Dynamic Graphs via Parameter Isolation”  
**Peiyan Zhang\***, Yuchen Yan\*, Chaozhuo Li, Senzhang Wang, Xing Xie, Guojie Song, Sunghun Kim.  
*International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, 2023. **[Oral]**

- “Efficiently Leveraging Multi-level User Intent for Session-based Recommendation via Attention Mixer Network”  
**Peiyan Zhang\***, Jiayan Guo\*, Chaozhuo Li, Yueqi Xie, Jaeboum Kim, Yan Zhang, Xing Xie, Haohan Wang, Sunghun Kim.  
*International Conference on Web Search and Data Mining (WSDM)*, 2023.

**[Best Paper Honorable Mention (Top 2%) & Oral]**

- “Evolutionary Preference Learning via Graph Nested GRU ODE for Session-based Recommendation ”  
Jiayan Guo\*, **Peiyan Zhang\***, Chaozhuo Li, Xing Xie, Yan Zhang, Sunghun Kim.  
*International Conference on Information and Knowledge Management (CIKM)*, 2022. **[Oral]**

## TEACHING EXPERIENCE

- Teaching Assistant
  - COMP3111 Software Engineering at HKUST Fall 2022
  - COMP4901U Computer Language Processing at HKUST Fall 2021
  - COMP1021 Introduction to Computer Science at HKUST Spring 2021

## SERVICES

### Program Committee Member

- SIGIR-AP 2025
- SIGIR 2025
- AAAI 2025
- WWW 2024 Data-centric Artificial Intelligence Workshop
- KDD 2024 Ethical Artificial Intelligence Workshop

### Reviewer

- Conference: NeurIPS, ICLR, ICML, KDD, WWW, SIGIR, CVPR, ACL, EMNLP, AAAI, IJCAI, PAKDD, AISTAT
- Journal: IEEE Transactions on Neural Networks and Learning Systems, Neurocomputing, Neural Networks, Information Fusion, Neural Computing & Applications, Future Generation Computer Systems, Computers in Biology and Medicine