

# Peiyan, Zhang

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

## 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: 600+citations, h-index: 13

### Selected Preprints

- “Reasoning Can Hurt the Inductive Abilities of Large Language Models”  
Haibo Jin, **Peiyan Zhang**, Man Luo, Haohan Wang. 2025.
- “From Hallucinations to Jailbreaks: Rethinking the Vulnerability of Large Foundation Models”  
Haibo Jin, **Peiyan Zhang**, Peiran Wang, Man Luo, Haohan Wang. 2025.
- “GuardVal: Dynamic Large Language Model Jailbreak Evaluation for Comprehensive Safety Testing”  
**Peiyan Zhang**, Haibo Jin, Liying Kang, Haohan Wang. 2024
- “Guard: Role-playing to generate natural-language jailbreakings to test guideline adherence of large language models”  
Haibo Jin, Ruoxi Chen, **Peiyan Zhang**, Andy Zhou, Yang Zhang, Haohan Wang. 2023.

### 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**, Chaozhuo 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, Chaozhuo 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, Chaozhuo 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 Atten-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

- WSDM 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