Xiaoyu Zhang

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EDUCATION

School of Computer Science and Technology, Shandong University　　Qingdao, China
Master of Electronic Information in Computer Technique　　Sep 2021 — Jun 2024
- GPA: 88.25/100.
- Key Courses: Machine learning (94); Social media analysis (96); Advanced algorithm (88).

School of Computer Science and Technology, Shandong University　　Qingdao, China
Bachelor of Engineering in Computer Science and Technology　　Sep 2017 — Jun 2021
- GPA: 89.87/100 (Ranking: 14/157).
- Key Courses: Information retrieval (95); Artificial intelligence (99); Human-computer interaction (89).

PUBLICATIONS

[1] **Xiaoyu Zhang**, Ruobing Xie, Yougang Lyu, Xin Xin, *et al.*, "Towards empathetic conversational recommender systems," in *Proceedings of the RecSys (CORE Ranking A), Bari, Italy*, 2024 (**Best Full Paper Award**). DOI: 10.1145/3640457.3688133.

[2] **Xiaoyu Zhang**, Xin Xin, Dongdong Li, Wenxuan Liu, *et al.*, "Variational reasoning over incomplete knowledge graphs for conversational recommendation," in *Proceedings of the WSDM (CORE Ranking A), Singapore*, 2023. DOI: 10.1145/3539597.3570426.

[3] **Xiaoyu Zhang**, Dongdong Li, Pengjie Ren, Zhumin Chen, *et al.*, "Memory networks based knowledge aware medical dialogue generation," *Journal of Computer Research and Development (China Core CS Journal, CCF Tier-A, EI Indexed)*, vol. 59, no. 12, 2022. DOI: 10.7544/issn1000-1239.20210851.

[4] Yougang Lyu, **Xiaoyu Zhang**, Zhaochun Ren, and Maarten de Rijke, "Cognitive biases in large language models for news recommendation," in *Proceedings of the ROEGEN@RecSys (CORE Ranking A), Bari, Italy*, 2024. DOI: 10.48550/arXiv.2410.02897.

[5] Yougang Lyu, **Xiaoyu Zhang**, Lingyong Yan, Maarten de Rijke, *et al.*, "Deepshop: A benchmark for deep research shopping agents," *submitted to NeurIPS 2025 (CORE Ranking A*)* (Under Review). DOI: 10.48550/arXiv.2506.02839.

RESEARCH EXPERIENCES

Leiden Institute of Advanced Computer Science, Leiden University.　　Leiden, Netherlands
Research assistant, Supervisors: Dr. Zhaochun Ren.　　Jun 2024 — Present
- Contribution: Discussion, experiments, and writing.
- Work on two projects about LLM-based recommendation: one explores cognitive biases in LLM-based news recommender systems and strategies to mitigate them[4], and the other examines the performance of LLM-based web agents in complex and realistic online shopping environments[5].

Weixin Group, Tencent Inc.　　Beijing, China
Internship, Supervisors: Dr. Zhaochun Ren, Ruobing Xie.　　Jun 2023 — Feb 2024
- Contribution: Conceptualization, methodology, data collection, experiments, and writing.
- Propose a novel empathetic Conversational Recommender System (CRS) using LLMs to align with user needs, improve recommendation accuracy, and enhance user satisfaction[1].

School of Computer Science and Technology, Shandong University.　　Qingdao, China
Project Participant, Supervisors: Dr. Zhaochun Ren, Dr. Xin Xin.　　Sep 2021 — Dec 2022
- Contribution: Conceptualization, methodology, experiments, and writing.
- Propose a variational reasoning approach to enhance the original incomplete and noisy knowledge graphs (KGs) involved in CRSs and perform dynamic knowledge reasoning conditioned on dialogue.[2].

NLP and KG Department, Baidu Inc. Beijing, China
Internships, Supervisor: Dr. Wei Li. May 2022 — Feb 2023
- Construct multimodal news data and train a subjective-objective news evaluation metric mapping model.
- Develop an efficient news text-cleaning strategy for digital hosts on Baidu's social media platform. The strategy achieved a 98% pass rate in human evaluation.

School of Computer Science and Technology, Shandong University. Qingdao, China
Research Assistant, Supervisors: Dr. Zhaochun Ren. Sep 2020 — Aug 2021
- Contribution: Conceptualization, methodology, experiments, and writing.
- Propose a medical dialogue generation method using knowledge-aware memory networks to improve response quality on diversity and correctness.[3].

SCHOLARSHIPS & AWARDS

- **Best Full Paper Award**, The 18th ACM Conference on Recommender Systems 2024. Oct 2024
- The Rhino-Bird Research Elite, Tencent Inc. Aug 2024
- Dean's scholarship (10,000 RMB), Shandong University. Dec 2023
- First-class academic scholarship (8,000 RMB, performance top 10%), Shandong University. Dec 2023
- Outstanding postgraduate, Shandong University. Nov 2023
- First-class academic scholarship (8,000 RMB, performance top 1%), Shandong University. Dec 2020
- Honorable Mention of the Mathematical Contest in Modeling. May 2023

TALKS

Invited Talks:
- **University of Glasgow**, Online. Jan 2025
  Title: Enhancing CRSs: Integrating Knowledge, Context, and Emotions.
- **ByteDance Inc.**, Online. Nov 2024
  Title: User-centric Conversational Recommender Systems.

Conference Oral Presentations:
- **RecSys 2024**, Bari, Italy. Oct 2023
  Title: Towards Empathetic Conversational Recommender Systems.
- **WSDM 2023**, Singapore. Feb 2023
  Title: Variational Reasoning over Incomplete Knowledge Graphs for Conversational Recommendation.

ACADEMIC SERVICE

- **Journal Reviewers**: TKDE 2025/2024, IPM 2023.
- **PC Members**: SIGIR 2025, CCIR 2024.

TEACHING EXPERIENCES

School of Computer Science and Technology, Shandong University Qingdao, China
Teaching Assistant, Course: Introduction to Data Science (Spring). 2021 — 2023
- Responsibility: Design laboratory experiments, teach all laboratory sections(Over 30 undergraduate students annually), create exam questions, grade lab reports and exams.

SKILLS

- **Programm skills**: Python (Top 4.3% in Certified Software Professional, China Computer Federation), LATEX, PyTorch.
- **Languages**: Chinese[native], English[IELTS 7.0 (Listening:7.5, Reading:7.0, Writing:7.0, Speaking:6.0)].