

Xiaoyu Zhang

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EDUCATION

Shandong University(Project 985, Double First-Class Construction) Qingdao, China
M.S. in Computer Technique Sep 2021 — July 2024

- GPA: 89/100.
- Thesis: Research on Dynamic and Empathetic Conversational Recommender Systems Based on Knowledge Graphs.[1][2]
- Supervisor: Prof. Zhaochun Ren.
- Scholarships & Awards: Dean's scholarship of Shandong University(2023, ¥10,000), First-class academic scholarship of Shandong University(2023 & 2021, top 10%, ¥8,000), Outstanding postgraduate of Shandong University(2023).

Shandong University(Project 985, Double First-Class Construction) Qingdao, China
B.E. in Computer Science and Technology Sep 2017 — July 2021

- GPA: 90/100 (Ranking: 14/157).
- Thesis: Memory Networks Based Knowledge-Aware Medical Conversation Generation.[4]
- Scholarships & Awards: First-class academic scholarship of Shandong University(2020, top 5%, ¥8,000), Honorable mention of the mathematical contest in modeling(2020).

PUBLICATIONS

- [1] **Xiaoyu Zhang**, Ruobing Xie, Yougang Lyu, Xin Xin, Pengjie Ren, Mingfei Liang, Bo Zhang, Zhanhui Kang, Maarten de Rijke, and Zhaochun Ren, "Towards empathetic conversational recommender systems," in *Proceedings of the RecSys, Bari, Italy, 2024* (Full track, **Oral presenter, Best Paper Award**). DOI: 10.1145/3640457.3688133.
- [2] **Xiaoyu Zhang**, Xin Xin, Dongdong Li, Wenxuan Liu, Pengjie Ren, Zhumin Chen, Jun Ma, and Zhaochun Ren, "Variational reasoning over incomplete knowledge graphs for conversational recommendation," in *Proceedings of the WSDM, Singapore, 2023* (Full track, **Oral presenter**). DOI: 10.1145/3539597.3570426.
- [3] Yougang Lyu, **Xiaoyu Zhang**, Zhaochun Ren, and Maarten de Rijke, "Cognitive biases in large language models for news recommendation," in *Proceedings of the 1st Workshop on Risks, Opportunities, and Evaluation of Generative Models in Recommender Systems(ROEGEN@RecSys'24), Bari, Italy, 2024* (Extended Abstracts). DOI: 10.48550/arXiv.2410.02897.
- [4] **Xiaoyu Zhang**, Dongdong Li, Pengjie Ren, Zhumin Chen, Jun Ma, and Zhaochun Ren, "Memory networks based knowledge aware medical dialogue generation," *Journal of Computer Research and Development*, vol. 59, no. 12, pp. 2889–2900, 2022. DOI: 10.7544/issn1000-1239.20210851.

RESEARCH INTERESTS

- Conversational Recommender Systems[1][2].
- LLM-based Generative Recommenders[3].

RESEARCH EXPERIENCES

Leiden Institute of Advanced Computer Science, Leiden University. Leiden, Netherlands
Research assistant, Supervisors: Prof. Zhaochun Ren Jun 2024 — Aug 2024

- Contribution: Discussion and writing.
- Research field: Large language model, recommender system, and cognitive bias.
- Explore the potential impact of cognitive biases on LLM-based news recommender systems and discuss strategies to mitigate these effect.[3].

Weixin Group, Tecom Inc.

Beijing, China

(The 2023 Tencent Rhino-Bird Research Elite Program)

Research internship, Supervisors: Ruobing Xie

Jun 2023 — Feb 2024

- Contribution: Conceptualization, methodology, data collection, experiments, and writing.
- Research field: Conversational recommender system, large language model, and empathetic response generation.
- Propose a novel empathetic conversational recommender(ECR) framework using LLM for enhancing recommendation accuracy and improving user satisfaction[1].

School of Computer Science and Technology, Shandong University.

Qingdao, China

Master thesis, Supervisors: Prof. Zhaochun Ren

Sep 2021 — Dec 2022

- Contribution: Conceptualization, methodology, experiments, and writing.
- Research field: Conversational recommender system, variational inference, and knowledge graph.
- Propose a variational reasoning CR approach to enhance the original incomplete KGs involved in systems and perform dynamic knowledge reasoning conditioned on the dialogue context[2].

School of Computer Science and Technology, Shandong University.

Qingdao, China

Bachelor thesis, Supervisors: Prof. Zhaochun Ren

Sep 2020 — Aug 2022

- Contribution: Experiments and writing.
- Research field: Medical dialogue generation and memory network.
- Propose a medical dialogue generation method using knowledge-aware memory networks to improve response quality on diversity, correctness, and professionalism.[4].

WORK & TEACHING EXPERIENCES

NLP and KG Department, Baidu Inc.

Beijing, China

Research and Development Internships

May 2022 — Feb 2023

- Responsibility: Participation in the development of social media platforms “Bai Jiahao”.
- Achievement: Developed an effective news text cleaning strategy to collect training data for the digital hosts. In the human evaluation, the cleaned data achieved a pass rate of 98%.

School of Computer Science and Technology, Shandong University

Qingdao, China

Teaching Assistant

2021 — 2023

- Course: Introduction to Data Science(Spring).
- 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 (China Computer Federation - Certified Software Professional 2020 ranking top 4.3%), LATEX, PyTorch
- Languages: Chinese(native), English(IELTS 6.5)