

## Research Interests

Explainable Recommendation, Recommender Systems, Large Language Models, Natural Language Processing

## Education

### Ph.D. of Computer Science

Hong Kong Baptist University (HKBU)

Advisor: [Prof. Li Chen](#), Mentors: [Dr. Yongfeng Zhang](#) & [Dr. Ruihai Dong](#)

Aug. 2017 – Nov. 2022

- Thesis: *Natural Language Explanation for Recommendations and Beyond*
- Studied recurrent neural networks (RNN), Transformer and large language models (LLM) for recommendation explanation generation, and published 3 papers at CIKM'20, ACL'21 and TOIS
- Major research outcome integrated into a small eco-system [NLG4RS](#) for recommender systems-based natural language generation that includes benchmark datasets, evaluation metrics and representative models

### B.Eng. of Computer Science & B.Sc. of Mathematics

Shenzhen University (SZU)

Advisor: [Prof. Weike Pan](#)

Sep. 2013 – Jun. 2017

- Research on recommendation algorithms, especially collaborative filtering and matrix factorization

## Experiences

### Hong Kong Baptist University

Aug. 2022 – Present

Post-doctoral Research Fellow Advisor: [Prof. Li Chen](#), Mentor: [Dr. Yongfeng Zhang](#)

Hong Kong, China

- Supported by Hong Kong Research Grants Council (RGC) and Huawei
- Research on LLM-based recommendation
- Published a survey at COLING'24, where how LLM would shape recommender systems from multi-stage filtering to single-stage filtering was discussed

### Rutgers University

Feb. 2023 – Jun. 2023

Visiting Researcher Advisor: [Dr. Yongfeng Zhang](#)

New Brunswick, USA

- Published 1 paper about efficient LLM-based recommendation at CIKM'23

### Inspir.ai

Jun. 2019 – Aug. 2019

Intern Mentor: [Dr. Peng Peng](#)

Beijing, China

- Research on explaining the decision-making process of reinforcement learning (RL) agents
- Visualization of the replay data of the computer game StarCraft II

### Hong Kong Baptist University

Mar. 2017 – Jun. 2017

Research Exchange Student Advisor: [Prof. Li Chen](#)

Hong Kong, China

- Research on personality for recommender systems

### Suishou Technology

Aug. 2016 – Nov. 2016

Intern Advisor: [Prof. Weike Pan](#)

Shenzhen, China

- Utilized machine learning tools (such as Liblinear and XGBoost) to mine potential customers for personalized advertising
- Increased the company's sales of financial products by 4 times during an online test

## Selected Publications

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- Large Language Models for Generative Recommendation: A Survey and Visionary Discussions (**citation 80+**)  
**Lei Li**, Yongfeng Zhang, Dugang Liu, Li Chen  
**COLING'24**: Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation, pages 10146-10159, Turin, Italy, May 20–25, 2024
- Prompt Distillation for Efficient LLM-based Recommendation (**citation 90+**)  
**Lei Li**, Yongfeng Zhang, Li Chen  
**CIKM'23**: Proceedings of the 32nd ACM International Conference on Information and Knowledge Management, pages 1348-1357, Birmingham, United Kingdom, October 21–25, 2023
- Personalized Prompt Learning for Explainable Recommendation (**citation 170+**)  
**Lei Li**, Yongfeng Zhang, Li Chen  
**TOIS**: ACM Transactions on Information Systems, volume 41 (4), article 103, pages 1-26, March 2023
- On the Relationship between Explanation and Recommendation: Learning to Rank Explanations for Improved Performance  
**Lei Li**, Yongfeng Zhang, Li Chen  
**TIST**: ACM Transactions on Intelligent Systems and Technology, volume 14 (2), article 21, pages 1-24, February 2023
- Augmenting Legal Judgment Prediction with Contrastive Case Relations  
Dugang Liu, Weihao Du, **Lei Li**, Weike Pan, Zhong Ming  
**COLING'22**: Proceedings of the 29th International Conference on Computational Linguistics, pages 2658-2667, Gyeongju, Republic of Korea, October 12–17, 2022
- Improving Personalized Explanation Generation through Visualization  
Shijie Geng, Zuohui Fu, Yingqiang Ge, **Lei Li**, Gerard de Melo, Yongfeng Zhang  
**ACL'22**: Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics, pages 244-255, Dublin, Ireland, May 22–27, 2022
- Personalized Transformer for Explainable Recommendation (**citation 160+**)  
**Lei Li**, Yongfeng Zhang, Li Chen  
**ACL'21 (oral)**: Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing, pages 4947-4957, Online, Thailand, August 1–6, 2021
- EXTRA: Explanation Ranking Datasets for Explainable Recommendation  
**Lei Li**, Yongfeng Zhang, Li Chen  
**SIGIR'21**: Proceedings of the 44th International ACM SIGIR Conference on Research and Development in Information Retrieval, pages 2463-2469, Virtual Event, Canada, July 11–15, 2021
- Generate Neural Template Explanations for Recommendation (**citation 150+**)  
**Lei Li**, Yongfeng Zhang, Li Chen  
**CIKM'20**: Proceedings of the 29th ACM International Conference on Information & Knowledge Management, pages 755-764, Virtual Event, Ireland, October 19–23, 2020

## Grants

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### Huawei Gift Fund

Jun. 2024 – Jun. 2025

*Incremental Learning of Large Language Models for Recommendation and Its Applications*

HK\$330K

### RGC Postdoctoral Fellowship Scheme (PDFS)

Aug. 2022 – Present

*Causal Inference for Natural Language Processing in Recommender Systems*

<b>Recent Trends in Recommender Systems Community (RecSys 2024)</b> <i>Professors' Insights Gained from Top Conferences</i>	Nov. 2024 Huawei (Online)
<b>Conversational Recommender Systems and Recent Trends Driven by LLMs</b> <i>Summer School at RecSys'24</i>	Oct. 2024 Bari
<b>Large Language Models for Generative Recommendation</b> <i>ConsumerBG AI Workshop Hong Kong</i>	Apr. 2024 Huawei Hong Kong Research Center
<b>Large Language Models for Generative Recommendation</b> <i>Huawei Computing Youth Forum</i>	Apr. 2024 Hangzhou
<b>Large Language Models for Recommendation</b> <i>Tutorial at RecSys'23</i> Attracted hundreds of audience	Sep. 2023 Singapore
<b>Generating Recommendation Explanations with Transformer and Pre-trained Model</b> <i>Data Science Lab</i>	Mar. 2023 Korea Advanced Institute of Science & Technology (Online)
<b>Improving Personalized Explanation Generation through Visualization</b> <i>Department of Computer Science</i>	Dec. 2022 University of Luxembourg (Online)
<b>How to Come up with Ideas and Do Research: Experience Sharing</b> <i>COMP7160 Research Methods in Computer Science</i>	Oct. 2021 Hong Kong Baptist University

## Academic Services

- **Guest Editor:** ACM Transactions on Recommender Systems (TORS) special issue on “Large Language Models for Recommender Systems”, 2023 – 2024
- **Workshop Organizer:** “EARL: Workshop on Evaluating and Applying Recommendation Systems with Large Language Models”. RecSys'24
- **Session Chair:** CIKM'23 (Recommendation 9), WWW'23 (Multi-behavior Recommendation & Self-supervised Learning)
- **Program Committee Member:** RecSys'24, WWW'23, RecSys'22
- **Invited Reviewer:**
  - IEEE Transactions on Knowledge and Data Engineering (TKDE), 2023, 2024
  - ACM Transactions on Information Systems (TOIS), 2020, 2022, 2024
  - ACM Transactions on Recommender Systems (TORS), 2023, 2024
  - ACM Transactions on Intelligent Systems and Technology (TIST), 2025
  - IEEE Transactions on Big Data (TBD), 2022
  - International Journal of Human-Computer Studies (IJHCS), 2024
  - ACM Transactions on Interactive Intelligent Systems (TiiS), 2021
  - Neurocomputing (NEUCOM), 2018, 2024
  - Knowledge-based Systems (KNOSYS), 2018
  - Journal of Intelligent Information Systems (JIIS), 2021
- **External Reviewer:** CIKM'24, SIGIR'21, WWW'21, WWW'19
- **Student Volunteer:** EMNLP'19

## Awards & Honors

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<b>RPg Performance Award</b>	HKBU	Sep. 2021
<b>Research Postgraduate Studentship</b>	HKBU	Aug. 2017 – Aug. 2021
<b>Student Travel Grant (Virtual)</b>	SIGIR'21	Jul. 2021
<b>Research Excellence Award</b>	PG Day, HKBU	Jun. 2021
<b>Student Travel Grant (Virtual)</b>	CIKM'20	Oct. 2020
<b>Best Presentation Award</b>	PG Day, HKBU	Jun. 2020
<b>Excellent Teaching Assistant Performance Award</b>	HKBU	Jun. 2018, 2019, 2020
<b>Teaching Assistant Performance Award</b>	HKBU	Feb. 2020
<b>Outstanding Graduate</b>	SZU	Jun. 2017

## Technical Skills

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<b>Programming Language</b>	Python, Java, Matlab, C++ (ordered by proficiency)
<b>Platform and Tool</b>	PyTorch, TensorFlow, Scikit-learn, MongoDB, Django, XGBoost, Liblinear

## Languages

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<b>Mandarin</b>	Native
<b>English</b>	Working proficiency
<b>Cantonese</b>	Elementary

Last update: December 25, 2024