Lei Li 李磊

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✈ RESEARCH INTERESTS

Explainable Recommendation, Recommender Systems, Natural Language Processing, Bias & Fairness

🎓 EDUCATION

Hong Kong Baptist University (HKBU), Hong Kong, China   Aug. 2017 – Present

Ph.D. in Computer Science
Thesis: *Natural Language Explanation for Recommendations and Beyond*

Shenzhen University (SZU), Shenzhen, China   Sep. 2013 – Jun. 2017

B.Eng. in Computer Science & *B.Sc.* in Mathematics
* *Selected by College of Computer Science and Software Engineering for a special program, where less than 30 students out of 60 successfully obtained the double degree*

👥 EXPERIENCES

Department of Computer Science (CSD), HKBU, Hong Kong, China   Aug. 2017 – Present

Ph.D. Student   Advisor: Dr. Li Chen, Mentors: Dr. Yongfeng Zhang & Dr. Ruihai Dong

- Research on explainable recommendation
- *Outcome*:
  • Submitted 1 paper on *Natural Language Explanation Generation* to TOIS
  • Published 1 co-author paper on *Visual Explanation Generation* at ACL'22
  • Published 1 co-author paper on *User Survey on Explanation* at Frontiers in Big Data
  • Published 1 paper on *Explanation Ranking* at SIGIR'21 Resource
  • Published 3 papers on *Natural Language Explanation Generation* at WWW'20 Demo & CIKM'20 & ACL'21
  • Published 1 paper on *Context-aware Explanation* at JIIS
  • Published 1 paper on *Context-aware Recommendation* at ICDE'19 Workshop

Inspir.ai, Beijing, China   Jun. 2019 – Aug. 2019

Intern   Mentor: Dr. Peng Peng

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

Big Data Institute, SZU, Shenzhen, China   Jul. 2016 – Aug. 2017

Undergraduate Research Assistant   Advisor: Dr. Weike Pan

- Research on recommendation algorithms, especially collaborative filtering and matrix factorization
- *Outcome*: published one paper on *Recommendation Algorithm* at ICWS'18

Department of Computer Science, HKBU, Hong Kong, China   Mar. 2017 – Jun. 2017

Research Exchange Student   Advisor: Dr. Li Chen

- Research on personality for recommender systems

Suishou Technology, Shenzhen, China   Aug. 2016 – Nov. 2016

Intern   Advisor: Dr. Weike Pan

- Utilize machine learning tools (Liblinear and XGBoost) to mine potential customers for personalized advertising
- *Outcome*: increased the company's revenue on financial products by 4 times

📖 PUBLICATIONS

- **Lei Li**, Yongfeng Zhang, Li Chen. Personalized Prompt Learning for Explainable Recommendation. ACM Transactions on Information Systems (**TOIS**), volume * (*), article *, pages *-*, 2022. [*major revision*]
- Shijie Geng, Zuohui Fu, Yingqiang Ge, **Lei Li**, Gerard de Melo, Yongfeng Zhang. Improving Personalized Explanation Generation through Visualization. Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (**ACL'22**), pages 244-255, Dublin, Ireland, May 22–27, 2022.
- Zhirun Zhang✉, Li Chen, Tonglin Jiang✉, Yutong Li, **Lei Li**. Effects of Feature-based Explanation and Its Output Modality on User Satisfaction with Service Recommender Systems. Frontiers in Big Data, volume 5, article 897381, pages 1-17, May 2022.
- **Lei Li**, Yongfeng Zhang, Li Chen. Personalized Transformer for Explainable Recommendation. Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics (**ACL'21**), pages 4947-4957, Online, Thailand, August 1–6, 2021. (**oral paper**)
- **Lei Li**, Li Chen, Ruihai Dong. CAESAR: Context-Aware Explanation based on Supervised Attention for Service Recommendations. Journal of Intelligent Information Systems (**JIIS**), volume 57 (1), pages 147-170, August 2021.
- **Lei Li**, Yongfeng Zhang, Li Chen. EXTRA: Explanation Ranking Datasets for Explainable Recommendation. Proceedings of the 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR'21 Resource**), pages 2463-2469, Virtual Event, Canada, July 11–15, 2021.
- **Lei Li**, Yongfeng Zhang, Li Chen. Generate Neural Template Explanations for Recommendation. Proceedings of the 29th ACM International Conference on Information & Knowledge Management (**CIKM'20**), pages 755-764, Virtual Event, Ireland, October 19–23, 2020.
- **Lei Li**, Li Chen, Yongfeng Zhang. Towards Controllable Explanation Generation for Recommender Systems via Neural Template. Companion Proceedings of the Web Conference 2020 (**WWW'20 Demo**), pages 198-202, Taipei, Taiwan, April 20–24, 2020.
- **Lei Li**, Ruihai Dong, Li Chen. Context-aware Co-Attention Neural Network for Service Recommendations. 2019 IEEE 35th International Conference on Data Engineering Workshops (**ICDE'19 Workshop**), pages 201-208, Macao, China, April 8–12, 2019.
- **Lei Li**, Weike Pan✉, Li Chen, Zhong Ming✉. RLT: Residual-Loop Training in Collaborative Filtering for Combining Factorization and Global-Local Neighborhood. 25th International Conference on Web Services (**ICWS'18**), pages 326-336, Seattle, USA, June 25–30, 2018.

✉ denotes corresponding author.

✏ PROPOSAL WRITING (OR PARTLY)

- Causal Inference for Natural Language Processing in Recommender Systems
  - Awarded RGC Postdoctoral Fellowship Scheme (PDFS) in 2022
- Research on Generating Explainable Serendipity-Oriented Recommendations based on Knowledge Graph
  - Principal Investigator: Dr. Li Chen
  - Funded by General Research Fund (GRF) in 2020
- Engaging the Audience with AI-powered News Chatbot
  - Principal Investigator: Dr. Li Chen
  - Funded by HKBU IRCMS Project in 2019

💬 ACADEMIC SERVICES

- *Program Committee Member*: RecSys'22, SocInfo'22, SAC'22 & SAC'21 RS Track
- *Reviewer*:
  - ACM Transactions on Information Systems (TOIS)
  - ACM Transactions on Interactive Intelligent Systems (TiiS)
  - IEEE Transactions on Big Data (TBD)
  - Neurocomputing (NEUCOM)

- Knowledge-based Systems (KNOSYS)
- Journal of Intelligent Information Systems (JIIS)
- Frontiers in Big Data
- *External Reviewer*: SIGIR'21, WWW'21, WWW'19, ImpactRS'20, CARS'19
- *Student Volunteer*: EMNLP'19

♟ AWARDS & HONORS

- *Postdoctoral Fellowship Scheme (PDFS)*, RGC, Hong Kong   May 2022
- *RPg Performance Award*, CSD, HKBU   Sep. 2021
- *Research Postgraduate Studentship*, HKBU   Aug. 2017 – Aug. 2021
- *Student Travel Grant (Virtual)*, SIGIR'21   Jul. 2021
- *Research Excellence Award*, Postgraduate Research Symposium (PG Day), CSD, HKBU   Jun. 2021
- *Student Travel Grant (Virtual)*, CIKM'20   Oct. 2020
- *Best Presentation Award*, Postgraduate Research Symposium (PG Day), CSD, HKBU   Jun. 2020
- *Excellent Teaching Assistant Performance Award*, CSD, HKBU   Jun. 2018 & 2019 & 2020
- *Teaching Assistant Performance Award*, CSD, HKBU   Feb. 2020
- *Outstanding Graduate*, SZU   Jun. 2017
- *Excellent Student of Academic Performance (2nd Prize)*, SZU   Oct. 2016
- *Excellent Student Leader (2nd Prize)*, SZU   Oct. 2015
- *Song Shan Hu Scholarship*, SZU   Oct. 2014
- *National Motivational Scholarship*, SZU   Oct. 2014

⚙ IT SKILLS

- Programming language: Python, Java, Matlab, C++ (ordered by proficiency)
- Platform and tools: Linux, PyTorch, TensorFlow, LaTeX, Scikit-learn, MongoDB, Django, XGBoost, Liblinear, Git

ℹ MISCELLANEOUS

- Language: Mandarin (native), English (fluent)
- Google Scholar: citations (110+), h-index (5), h10-index (4)
- Github: stars (170+)

Last update: June 29, 2022