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. Candidate in Computer Science

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 Supervisor: Dr. Li Chen, Mentors: Dr. Yongfeng Zhang & Dr. Ruihai Dong

- Research on explainable recommendation
- *Outcome*:
  - Submitted 1 paper on *Explanation Ranking* to TOIS
  - Published 1 paper on *Explanation Ranking* in SIGIR'21 Resource
  - Published 3 papers on *Natural Language Explanation Generation* in WWW'20 Demo & CIKM'20 & ACL'21
  - Published 1 paper on *Context-aware Explanation* in JIIS
  - Published 1 paper on *Context-aware Recommendation* in 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 Supervisor: Dr. Weike Pan

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

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

Research Exchange Student Supervisor: Dr. Li Chen

- Research on personality for recommender systems

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

Intern Supervisor: 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. Learning to Explain Recommendations. ACM Transactions on Information Systems (**TOIS**), 2021. [*submitted*]
- **Lei Li**, Yongfeng Zhang, Li Chen. Personalized Transformer for Explainable Recommendation. In: 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**, Yongfeng Zhang, Li Chen. EXTRA: Explanation Ranking Datasets for Explainable Recommendation. In: 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**, Li Chen, Ruihai Dong. CAESAR: Context-Aware Explanation based on Supervised Attention for Service Recommendations. Journal of Intelligent Information Systems (**JIIS**), vol. 57(1), pages 147-170, 2021.
- **Lei Li**, Yongfeng Zhang, Li Chen. Generate Neural Template Explanations for Recommendation. In: Proceedings of the 29th ACM International Conference on Information and 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. In: Companion Proceedings of the 2020 World Wide Web Conference (**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. In: Proceedings of 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. In: Proceedings of 2018 International Conference on Web Services (**ICWS'18**), pages 326-336, Seattle, USA, June 25–30, 2018.

✉ denotes corresponding author.

Participation in Proposal Writing

- 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

Talks

- Research Experience Sharing — Nov. 11, 2021
  - CSD, HKBU
- How to Come up with Ideas and Do Research: Experience Sharing — Oct. 19, 2021
  - COMP7160 Research Methods in Computer Science, CSD, HKBU

Academic Services

- *Program Committee Member* of SAC'22 & SAC'21 RS Track
- *Reviewer* of ACM Transactions on Information Systems (TOIS), ACM Transactions on Interactive Intelligent Systems (TiiS), Knowledge-based Systems (KNOSYS), Neurocomputing (NEUCOM), Journal of Intelligent Information Systems (JIIS)
- *External Reviewer* of SIGIR'21, WWW'21, WWW'19, ImpactRS'20, CARS'19
- *Student Volunteer* of EMNLP'19

Awards & Honors

- *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 (The 2nd Prize)*, SZU Oct. 2016
- *Excellent Student Leader (The 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

Miscellaneous

- Language: Mandarin (native), English (fluent)

Last update: December 6, 2021