Jin Huang

PhD candidate – University of Amsterdam – the Netherlands

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Research Interests

Reinforcement learning based recommendation and search, debiasing recommendations

Education

University of Amsterdam — Amsterdam, the Netherlands
PhD candidate in Computer Science — *July 2019 - present*
Advisor: Prof. dr. Maarten de Rijke, Dr. Herke van Hoof, Dr. Harrie Oosterhuis

Renmin University of China — Beijing, China
M.E. in Computer Science — *Sep. 2016 - July 2019*
Advisor: Prof. dr. Ji-Rong Wen, Prof. dr. Xin Zhao
Thesis: Research on Sequential Recommendation Algorithms with Knowledge Reasoning

Renmin University of China — Beijing, China
B.E. in Computer Science — *Sep. 2012 - July 2016*
Advisor: Prof. dr. Xin Zhao
Thesis: A Comparison of Recommendation Methods with Learning Distributed Representations

Publications

State Encoders in Reinforcement Learning for Recommendation: A Reproducibility Study
Jin Huang, *Harrie Oosterhuis, Bunyamin Cetinkaya, Thijs Rood, Maarten de Rijke*
45th International ACM SIGIR Conference on Research & Development in Information Retrieval (SIGIR). 2022.

It Is Different When Items Are Older: Debiasing Recommendations When Selection Bias and User Preferences are Dynamic
Jin Huang, *Harrie Oosterhuis, Maarten de Rijke*
Fifteenth International Conference on Web Search and Data Mining (WSDM). 2022: 381-389.

Keeping Dataset Biases out of the Simulation: A Debiased Simulator for Reinforcement Learning based Recommender Systems
Jin Huang, *Harrie Oosterhuis, Maarten de Rijke, Herke van Hoof*
Fourteenth ACM Conference on Recommender Systems (Recsys). 2020: 190-199.

Taxonomy-Aware Multi-Hop Reasoning Networks for Sequential Recommendation
Jin Huang, *Zhaochun Ren, Wayne Xin Zhao, Gaole He, Ji-Rong Wen, Daxiang Dong*
Proceedings of the Twelfth ACM International Conference on Web Search and Data Mining (WSDM). 2019: 573-581.

Improving Sequential Recommendation with Knowledge-Enhanced Memory Networks
Jin Huang, *Wayne Xin Zhao, Hongjian Dou, Ji-Rong Wen, Edward Y. Chang*
41st International ACM SIGIR Conference on Research & Development in Information Retrieval (SIGIR). 2018: 505-514.

Learning distributed representations for recommender systems with a network embedding approach
Wayne Xin Zhao, ***Jin Huang****, Ji-Rong Wen*
Asia information retrieval symposium (AIRS). Springer, Cham, 2016: 224-236.

KB4Rec: A Data Set for Linking Knowledge Bases with Recommender Systems
Wayne Xin Zhao, Gaole He, Kunlin Yang, Hongjian Dou, ***Jin Huang****, Siqi Ouyang, Ji-Rong Wen*
Data Intelligence, 2019, 1(2): 121-136.

Working Papers

Uncertainty in Feed Recommendation
Jin Huang, *Harrie Oosterhuis, Maarten de Rijke, Herke van Hoof*

Awards & Recognition

- Student Travel Award in SIGIR, 2022
- Student Travel Award in WSDM, 2022
- China National Scholarship, 2018
- Student Travel Grant in SIGIR 2018
- Excellent postgraduate in Renmin University, 2017
- CCF Elite Collegiate Award, 2016
- Sa Elite Scholarship, 2016
- The first prize in *China University Innovation Research and Training Program*(*UIRT*), 2016
- The first prize in *China National College Student Information Security Contest*, 2015

Working Experience

Microsoft Research Asia **Beijing, China**
Intern - Social Computing Group *May 2018 - Nov. 2018*
Work on designing a Knowledge Graph-based Recommender System for a financial institution and Meta-path based Recommender system.

Teaching Experience

Teaching assistant in University of Amsterdam **Online**
Teaching assistant for Reinforcement Learning course *Sep. 2020 - Oct. 2020*
Work on exercise/exam designing, grading and answering students' questions.

Teaching assistant in University of Amsterdam **Amsterdam, the Netherlands**
Teaching assistant for Reinforcement Learning course *Sep. 2021 - Oct. 2021*
Work on exercise/exam designing, grading and answering students' questions.

Student supervision in University of Amsterdam **Amsterdam, the Netherlands**

- Cas Hortensius (MSc., March 2022 - present): Recommender System for the Out of Home Industry;
- Helma Koopmans (MSc., Feb. 2021 - Feb. 2022): Fairness in two-sided markets;
- Thijs Rood (BSc., April - June 2021): Attention-based State Encoder in Reinforcement Learning for Recommendation;
- Bunyamin Çetinkaya (BSc., April - June 2021): Improving Reinforcement Learning for Recommendation Systems with a Convolutional Neural Network-based State Encoder;
- Luke de Keijzer (MSc., March - July 2020): Improving Company "Look-a-Likes" Finding Algorithm with the use of Graph Theory.

Skills

- **Technologies:** LaTeX, Python, C++, Theano, Tensorflow, Pytorch
- **Language:** English, Chinese

Professional Activities

- **Encore talk at Sim4IR**: Workshop on Simulation for Information Retrieval Evaluation Co-located with SIGIR 2021 (Virtual Event), July 15, 2021
- **Invited talk at SEA**: Search Engines Amsterdam, Online, Oct 2020
- **Journal Reviewer:** TOIS 2020, TOIS 2022
- **Sub-reviewer:** RecSys 2020, SIGIR 2020, ICTIR 2021, ECIR 2022
- **Reviewer:** SIGIR 2022, ECML PPKD 2022