

Yiling Jia

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EDUCATION

University of Virginia

Ph.D in Computer Science

Advisor: Hongning Wang. Thesis: Toward Reliable Decision-making in Information Systems.

Charlottesville, VA

Aug 2016 - Present

National Tsing Hua University

Master of Computer Science

Hsinchu, Taiwan

Sep 2014 - May 2016

Nankai University

Bachelor of Computer Science

Tianjin, China

Sep 2009 - Jun 2013

RESEARCH INTERESTS

Online Information Retrieval: (Neural) Contextual Bandit, Online Learning to Rank, Online Recommendation.

Reliable Machine Learning/Responsible AI: Fairness and Explainability in Recommendation and Search Ranking.

INTERNSHIP EXPERIENCE

Facebook

Machine Learning Engineer Intern at Search Team

Remote

Jun 2020 - Sep 2020

Unbiased Learning to Rank with Biased Feedback in Group Ranking: debiased the position bias in user click feedback with inverse propensity scoring; improved the ranking performance on user click through rate.

Walmart Labs

Research Intern at Personalization Team

Sunnyvale, CA

Jun 2019 - Sep 2019

Online Ranking in e-Commerce Search: proposed a pairwise online learning to rank model with theoretical guarantee.

PUBLICATIONS

Papers

- [1] **Yiling Jia**, Weitong Zhang, Dongruo Zhou, Quanquan Gu, Hongning Wang. *Learning Neural Contextual Bandits through Perturbed Rewards*. The 10th International Conference on Learning Representations (ICLR 2022).
- [2] **Yiling Jia**, Hongning Wang. *Learning Neural Ranking Models Online from Implicit User Feedback*. The ACM Web Conference 2022 (WWW 2022). ([pdf](#), [code](#))
- [3] **Yiling Jia**, Hongning Wang. *Calibrating Explore-Exploit Trade-off for Fair Online Learning to Rank*. arXiv:2111.00735, 2021. ([pdf](#), [code](#))
- [4] **Yiling Jia**, Huazheng Wang, Stephen Guo, Hongning Wang. *PairRank: Online Pairwise Learning to Rank by Divide and Conquer*. The ACM Web Conference 2021 (WWW 2021). (**Nominated for the Best Research Paper Award**). ([pdf](#), [code](#))
- [5] **Yiling Jia**, Nipun Batra, Hongning Wang, Kamin Whitehouse. *Active Collaborative Sensing for Energy Breakdown*. The 28th ACM International Conference on Information and Knowledge Management (CIKM 2019). ([pdf](#), [code](#))
- [6] **Yiling Jia**, Nipun Batra, Hongning Wang, Kamin Whitehouse. *A Tree-Structured Neural Network for Household Energy Breakdown*. The ACM Web Conference 2019 (WWW 2019). ([pdf](#), [code](#))
- [7] Yiyi Tao, **Yiling Jia**, Nan Wang, Hongning Wang. *The FacT: Taming Latent Factor Models for Explainability with Factorization Trees*. The 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2019). ([pdf](#), [code](#))
- [8] Nan Wang, **Yiling Jia**, Yue Yin, Hongning Wang. *Explainable Recommendation via Multi-Task Learning in Opinionated Text Data*. The 41st International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2018). ([pdf](#))
- [9] Nipun Batra, **Yiling Jia**, Hongning Wang, Kamin Whitehouse. *Transferring Decomposed Tensors for Scalable Energy Breakdown across Regions*. The Thirty-Second AAAI Conference on Artificial Intelligence (AAAI 2018). ([pdf](#))

Tutorials

- [1] Huazheng Wang, **Yiling Jia**, Hongning Wang. *Interactive Information Retrieval with Bandit Feedback*. The 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2021).

SKILLS

Languages and Tools: Python, C/C++, Deep Learning (PyTorch), SQL.