Yikun Ban

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RESEARCH INTERESTS:

My research goal is to tackle the **exploitation-exploration dilemma** in sequential-decision making. My research focuses lie at **multi-armed bandits**, extended to **reinforcement learning** and **deep learning theory**, with applications in recommender systems, online advertising, and clinical trials.

EDUCATION:

• **PH.D.** in Computer Science, **University of Illinois at Urbana-Champaign.** USA, Aug. 2019 - May. 2024 (expected).

• **M.S.** in Computer Science, **Peking University**, Beijing, China. Sep. 2016 - Jun. 2019.

• **B.S.** in Spatial-information & Digitalized Technology, **Wuhan University**, Wuhan, China. Sep.2012 - Jun.2016.

PUBLICATIONS:

• **Yikun Ban**, Jingrui He, and Curtiss B. Cook. "Multi-Facet Contextual Bandits: A Neural Network Perspective" . *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (**KDD'21**)*

• **Yikun Ban**, Jingrui He. "Local Clustering in Contextual Multi-Armed Bandits". *The 2021 World Wide Web Conference (**WWW '21**).*

• Yuchen Yan, Lihui Liu, **Yikun Ban**, Bayou Jing, and Hanghang Tong. "Dynamic Knowledge Graph Alignment". *AAAI Conference on Artificial Intelligence (**AAAI'21**).*

• **Yikun Ban**, Jingrui He. "Generic Outlier Detection in Multi-Armed Bandit". *In Proceedings of the 26th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (**KDD '20**), August 23–27, 2020, Virtual Event, CA, USA.*

• **Yikun Ban**, Xin Liu, Ling Huang, Yitao Duan, Xue Liu, and Wei Xu. "No Place to Hide: Catching Fraudulent Entities in Tensors". *In Proceedings of the 2019 World Wide Web Conference (**WWW '19**), May 13–17, 2019, San Francisco, CA, USA.*

PREPRINT

• **Yikun Ban**, Yuchen Yan, Arindam Banerjee, and Jingrui He. "EE-Net: Exploitation-Exploration Neural Networks in Contextual Bandits". *Preprint: ArXiv: 2110.03177.*

• **Yikun Ban** and Jingrui He. "Convolutional Neural Bandit: Provable Algorithm for Visual-aware Advertising". *Preprint: ArXiv: 2107.07438.*

AWARDS

• **First Prized (Top 0.1%, 2859 teams involved).** The 4th "China Software Cup" Software Design Competition for College Students (National Competition). (**Leader**)   - Aug. 2015
• **Second Prized (Top 0.2%, 5000+ teams involved)** in National Finals, **First Prized** in Provincial Finals. "Challenge Cup" China College Student's Entrepreneurship Competition in 2014. (**Primary member**)   - Nov. 2014
• **The Best Financial Creative Award**, "CITI CUP" Citi Financial Innovation Application Competition in 2014.
     - Sep. 2014

SELECTED HONERS
• Outstanding Students of Peking University, 2017-2018.
• Outstanding Graduate Student of Wuhan University, 2012-2016.
• Excellent Students Scholarship of Wuhan University, 2013-2015.
• Outstanding Students of Wuhan University, 2012-2016.

SERVICE
• AAAI'22, SDM'22, KDD'21, IJCAI'21, CIKM'21

SKILLS
• Programming: Python, C/C++, Java, Scala, Swift, Matlab.