# HONGBO LI

(Updated: August 6, 2024)

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## RESEARCH INTERESTS

- ➤ Networked AI
- ➤ Game Theory and Mechanism Design
- ➤ Machine Learning

## EXPERIENCE

**Singapore University of Technology and Design**, Singapore　　　　　　　　　08/2024 - current
*Postdoctoral Research Fellow*
Advisor: Lingjie Duan

**The Ohio State University**, Columbus, US　　　　　　　　　　　　　　　　12/2023 - 06/2023
*Visiting Scholar*
Advisors: Ness B. Shroff and Yingbin Liang

**Shanghai Jiao Tong University**, Shanghai, China　　　　　　　　　　　　　03/2018 - 08/2020
*Research Assistant*
Advisor: Jianping He

## EDUCATION BACKGROUND

**Singapore University of Technology and Design**, **Ph.D.**, Singapore　　　　09/2020 -  07/2024
Engineering Systems and Design Pillar
Advisor: Lingjie Duan

**Shanghai Jiao Tong University**, **B.Sc.**, Shanghai, China　　　　　　　　09/2015 - 06/2019
School of Electronic Information and Electrical Engineering, IEEE Honor Class

## PUBLICATIONS

**Conference Papers**

1. **H. Li** and L. Duan, "Distributed Learning for Dynamic Congestion Games," In *IEEE International Symposium on Information Theory (ISIT)*, 2024.
2. **H. Li** and L. Duan, "When Congestion Games Meet Mobile Crowdsourcing: Selective Information Disclosure," In *Proceedings of AAAI Conference on Artificial Intelligence*, 37(5), 5739-5746. 2023. (Oral)

**Journal Papers**

1. **H. Li** and L. Duan, "Human-in-the-loop Learning for Dynamic Congestion Games," in *IEEE Transactions on Mobile Computing.* 2024.
2. **H. Li** and L. Duan, "Online Pricing Incentive to Sample Fresh Information," in *IEEE Transactions on Network Science and Engineering*, 10 (1), 514-526. 2023.

**Preprints**

1. **H. Li**, and L. Duan, "Theory of Mixture-of-Experts for Mobile Edge Computing", submitted for publication.
2. **H. Li**, S. Lin, L. Duan, Y. Liang, and N. B. Shroff, "Theory on Mixture-of-Experts in Continual Learning", submitted for publication.
3. **H. Li**, and L. Duan, "Competitive Multi-armed Bandit Games: Analysis and Regulation", submitted for publication.
4. **H. Li**, and L. Duan, 'To Optimize Human-in-the-loop Learning in Repeated Routing Games", under review of *IEEE Transactions on Mobile Computing* (Major Revision).
5. **H. Li**, L. Duan, and N. B. Shroff, "Distributed Conflict-Graph Learning for Competitive Multi-armed Bandits", submitted for publication.
6. **H. Li**, L. Duan, and N. B. Shroff, "When Mobile Crowdsourcing Meets Queueing Systems: Side-payment Mechanism Design", under review of *IEEE/ACM Transactions on Networking.*
7. **H. Li**, and L. Duan, "To Analyze and Regulate Human-in-the-loop Learning for Congestion Games", under review of *IEEE/ACM Transactions on Networking* (Major Revision).

## PATENT

1. **H. Li**, X. Ding, Y. Li, and J. He, "A Particle Filter Based Localization Method for Multi-Robot Formation", patent number: CN202010128966.9.

## AWARDS & HONORS

➤ IEEE ISIT Student Travel Grant                                                    07/2024
➤ SUTD PhD Fellowship                                                               09/2020
➤ Outstanding Graduates of Shanghai (Top 2% in SJTU)                                05/2019
➤ Student of the Year (Nomination Award), SJTU (Top 15/40000)                       12/2017

## TEACHING EXPERIENCES

1. **Game Theory**, teaching assistant, undergraduate course                        05/2022 - 08/2022
   Singapore University of Technology and Design, Engineering Systems and Design Pillar
2. **Data and Business Analytics**, teaching assistant, undergraduate course        01/2022 - 04/2022
   Singapore University of Technology and Design, Engineering Systems and Design Pillar

## TECHNICAL REVIEWER

➤ IEEE Transactions on Services Computing (IEEE TSC).
➤ IEEE Transactions on Network Science and Engineering (IEEE TNSE).
➤ IEEE Transactions on Vehicular Technology (IEEE TVT).
➤ ACM Mobihoc 2022, 2024.

## TALKS

➤ "When Mobile Crowdsourcing Meets Congestion Games: Selective Information Disclosure"   04/2023
   Shanghai Jiao Tong University, Shanghai, China.