Yingkai Li

Contact Information	Northwestern University 2233 Tech Dr Evanston, IL 60201	https://yingkai-li.github.io/homepage yingkai.li@u.northwestern.edu

Research Interests Algorithmic game theory, mechanism design, microeconomic theory, online algorithms

Education

Northwestern University, Evanston, IL

Ph.D., Computer Science   Expected: May 2023
Advisor: Jason D. Hartline

Stony Brook University, Stony Brook, NY

M.S., Computer Science   May 2018

Shanghai Jiaotong University, Shanghai, China

B.S., Major: Computer Science, Minor: Robotics (IEEE honor class)   June 2015

Research Experience

Summer Intern   Jun 2020 to Sep 2020
Microsoft Research New England Lab
Mentor: Brendan Lucier, Nicole Immorlica

Research Assistant   Sep 2016 to Dec 2017
Department of Computer Science,
Stony Brook University
Supervisor: Jing Chen

Visiting Student   May to Jun 2017, 2018
School of Information Management and Engineering,
Shanghai University of Finance and Economics
Host: Pinyan Lu

Awards

Best Poster Award, EC 2020   2020
- Optimization of Scoring Rules.
  with Jason Hartline, Liren Shan and Yifan Wu

Special CS Department Chair Fellowship, Stony Brook University   2015

Journal Publications

1. Efficient Approximations for the Online Dispersion Problem.
   with Jing Chen and Bo Li, SICOMP 2019

Conference Publications

1. Benchmark Design and Prior-independent Optimization.
   with Jason Hartline and Aleck Johnsen, FOCS 2020

2. Multinomial Logit Bandit with Low Switching Cost.
   with Kefan Dong, Qin Zhang and Yuan Zhou, ICML 2020

3. Fair Resource Sharing and Dorm Assignments.
   with Bo Li, AAMAS 2020

4. Approximately Maximizing the Broker's Profit in a Two-sided Market.
   with Jing Chen and Bo Li, IJCAI 2019

5. Optimal Auctions vs. Anonymous Pricing: Beyond Linear Utility.
   with Yiding Feng and Jason Hartline, EC 2019

6. Nearly Minimax-Optimal Regret for Linearly Parameterized Bandits.
   with Yining Wang and Yuan Zhou, COLT 2019

7. Revenue Maximization with Imprecise Distribution.
   with Pinyan Lu and Haoran Ye, AAMAS 2019

8. Information Elicitation for Bayesian Auctions.
   with Jing Chen and Bo Li, SAGT 2018

9. Dynamic Fair Division Problem with General Valuations.
   with Bo Li and Wenyang Li, IJCAI 2018

10. Bayesian Auctions with Efficient Queries.
    with Jing Chen, Bo Li and Pinyan Lu, ICALP 2018 (Brief Announcement)

11. Efficient Approximations for the Online Dispersion Problem.
    with Jing Chen and Bo Li, ICALP 2017

WORKING PAPERS

1. Misspecified Beliefs about Time Lags.
   with Harry Pei

2. Fair Resource Sharing with Externailities.
   with Jiarui Gan and Bo Li

3. Revelation Gap for Pricing from Samples.
   with Yiding Feng and Jason Hartline

4. Equilibrium Behaviors in Reputation Games.
   with Harry Pei

5. Optimization of Scoring Rules.
   with Jason Hartline, Liren Shan and Yifan Wu

6. Simple Mechanisms for Non-linear Agents.
   with Yiding Feng and Jason Hartline

7. Tight Regret Bounds for Infinite-armed Linear Contextual Bandits.
   with Yining Wang and Yuan Zhou

8. Stochastic Linear Optimization with Adversarial Corruption.
   with Edmund Y. Lou and Liren Shan

PRESENTATIONS

Benchmark Design and Prior-independent Optimization.
- Symposium on Foundations of Computer Science   July 2020

Multinomial Logit Bandit with Low Switching Cost.
- International Conference on Machine Learning   July 2020

Optimal Auctions vs. Anonymous Pricing: Beyond Linear Utility.
- Conference on Economics and Computation   June 2019

Nearly Minimax-Optimal Regret for Linearly Parameterized Bandits.
- Conference on Learning Theory   June 2019

Efficient Approximations for the Online Dispersion Problem.
- International Colloquium on Automata, Languages, and Programming   Aug 2017
- China Theory Week   Aug 2017

From Bayesian to Crowdsourced Bayesian Auctions.
- International Conference on Game Theory   Jul 2016

TEACHING
EXPERIENCE

Teaching Assistant - Northwestern University

COMP_SCI 396 - Online Markets   Spring 2020
Instructor: Jason Hartline

COMP_SCI 336 - Design & Analysis of Algorithms   Fall 2019
Instructor: Jason Hartline

COMP_SCI 212 - Mathematical Foundations of Computer Science   Spring 2019
Instructor: Aravindan Vijayaraghavan

Teaching Assistant - Stony Brook University

CSE 215 - Foundations of Computer Science   Fall 2015, Spring 2016
Instructor: Himanshu Gupta; Paul Fodor

CSE 114 - Computer Science I   Spring 2016
Instructor: Paul Fodor

CSE 540 - Theory of Computation   Fall 2016
Instructor: Jing Chen