2521 Hearst Avenue, Berkeley, CA, 94709

#### **EDUCATION**

UC Berkeley [GPA: 4.00/4.00, Advisor: Xin Guo]

Aug. 2016 – May. 2022 (expected)

Ph.D., Industrial Engineering and Operations Research (IEOR) (in progress)

M.S., Industrial Engineering and Operations Research (IEOR)

Courses: Probability Theory (A+), Applied Stochastic Processes I, II (A+), Theoretical Statistics (A+), Convex Optimization and Approximation (A+), Network Flows and Graphs (A+), Mathematical Programming (A+)

Peking University [GPA: 3.74/4.00, Advisor: Zaiwen Wen]

Sept. 2012 – July. 2016

B.S., School of Mathematical Sciences (SMS), Department of Probability and Statistics

#### **PUBLICATIONS & PREPRINTS**

• Learning Mean-Field Games

X. Guo, A. Hu, R. Xu and J. Zhang. Neural Information Processing Systems (NeurIPS), 2019.

• Consistency and Computation of Regularized MLEs for Multivariate Hawkes Processes

X. Guo, A. Hu, R. Xu and J. Zhang. *Preprint*, *arXiv:1810.02955*.

Short version appeared in NeurIPS 2018 Workshop on Causal Learning.

• Logarithmic Regret for Episodic Continuous-Time Linear-Quadratic Reinforcement Learning over a Finite-Time Horizon

M. Basei, X. Guo, A. Hu and Y. Zhang. Preprint, arXiv:2006.15316, submitted to J. Mach. Learn. Res.

A General Framework for Learning Mean-Field Games

X. Guo, A. Hu, R. Xu and J. Zhang. Preprint, arXiv:2003.06069.

Major revision at Mathematics of Operations Research (MOR).

- Reinforcement Learning for Linear-Convex Models with Jumps via Stability Analysis of Feedback Controls X. Guo and A. Hu and Y. Zhang. *Preprint*, <u>arXiv:2104.09311</u>, submitted to SIAM J. Control Optim.
- Theoretical Guarantees of Fictitious Discount Algorithms for Episodic Reinforcement Learning and Global Convergence of Policy Gradient Methods

X. Guo, A. Hu and J. Zhang. Preprint, arXiv: 2109.06362, submitted to the AAAI Conference on Artificial Intelligence.

### **WORK EXPERIENCE**

May. 2019 - Aug. 2019 Applied Scientist Intern, Amazon, Seattle

Manager: Dr. Xinyang Shen

Data-Driven Large-Scale Inbound Behavior Prediction for Third-Party Sellers

### INVITED TALKS & PROFESSIONAL SERVICES

- INFORMS Annual Meeting, 2018 (Phoenix, AZ), 2019 (Seattle, WA), 2020 (Virtual)
- Neural Information Processing Systems, Poster, Vancouver, December 10, 2019
- Berkeley-Stanford Workshop on Mathematical and Computational Finance, Stanford University, CA (July. 2018)
- Graduate student instructor for IEOR 120/170/172/221/241/263B
- Reviewer: Journal of Optimization Theory and Applications (JOTA), NeurIPS 2021

# **HONORS AND AWARDS**

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•	Outstanding Graduate Student Instructor (top 10%)	2021
•	Berkeley Marshall-Oliver-Rosenberger Fellowship	2020
•	NeurIPS Travel Award	2019
•	Berkeley IEOR First Year Faculty Fellowship Award	2017
•	Baosteel Scholarship, Peking University (top 0.1%)	2015
•	Meritorious Award of 2015 ICM	2015
•	First Prize of 2015 Challenge Cup, Peking University	2015

## **SKILLS**

- **Programming & Software:** Python, Matlab, R, SQL, LaTeX
- **Specialization:** Applied Probability, Reinforcement Learning, Statistical/Machine Learning, Optimization