

YICHUN HU

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ACADEMIC POSITIONS

Cornell University, SC Johnson Graduate School of Management
Assistant Professor of Operations, Technology, & Information Management

Ithaca, NY
07/2023 -

EDUCATION

Cornell University/Cornell Tech
Ph.D. in Operations Research, Ph.D. minor in Applied Mathematics
Advisor: Nathan Kallus

New York, NY
08/2017 - 05/2023

Peking University
B.S. in Mathematics and Applied Mathematics
B.A. in Economics

Beijing, China
09/2013 - 06/2017
09/2014 - 06/2017

RESEARCH INTERESTS

Data-driven Decision-Making, Adaptive Experimentation, Contextual Bandit and Reinforcement Learning, Stochastic Optimization.

RESEARCH PAPERS

Publications

1. **Y. Hu**, N. Kallus, X. Mao (2022) Smooth Contextual Bandits: Bridging the Parametric and Non-differentiable Regret Regimes. *Operations Research* 70(6):3261-3281.
 - Finalist, INFORMS Applied Probability Society 2020 Best Student Paper Competition.
 - Preliminary version appeared in 33rd Conference on Learning Theory (*COLT*), 2020.
2. **Y. Hu**, N. Kallus, X. Mao (2022) Fast Rates for Contextual Linear Optimization. *Management Science* 68(6):4236-4245 (fast track).
3. M. Garrard, H. Wang, B. Letham, Z. Wang, Y. Huang, **Y. Hu**, C. Zhou, N. Zhou, E. Bakshy (2021) Practical Policy Optimization with Personalized Experimentation. *NeurIPS Workshop on Causal Inference Challenges in Sequential Decision Making*.

Working Papers

4. **Y. Hu**, N. Kallus, M. Uehara. Fast Rates for the Regret of Offline Reinforcement Learning. *Minor Revision at Mathematics of Operations Research*.
 - Preliminary version appeared in 34th Conference on Learning Theory (*COLT*), 2021.
5. **Y. Hu**, N. Kallus. DTR Bandit: Learning to Make Response-Adaptive Decisions with Low Regret. *Moderate Revision at Journal of the American Statistical Association*.

SELECTED HONORS

FODSI Postdoctoral Fellowship (declined)	2023
Rising Scholar, Chicago Booth	2022
Finalist, Applied Probability Society Best Student Paper Competition, INFORMS	2020
Sherri Koenig Stuewer Graduate Fellowship, Cornell University	2018
Excellent Graduate Award, Peking University	2017

INDUSTRY EXPERIENCE

Facebook (Meta)

Research Engineer Intern, Core Data Science (Adaptive Experimentation)

Menlo Park, CA (Remote)

05/2021-08/2021

- Worked on multi-objective adaptive experimentation algorithms.

Google

Data Scientist Intern, Google Play

Mountain View, CA (Remote)

05/2020-08/2020

- Worked on causal methods to analyze the impact of app usage on the retention rate of Google Play Pass.

TEACHING EXPERIENCE

Cornell University, Teaching Assistant

ORIE 5751: Learning, Inference, and Decision Making from Data

Spring 2023

CS 5785: Applied Machine Learning

Fall 2019

ORIE 4360: A Mathematical Examination of Fair Representation

Fall 2018

ORIE 3510: Introduction to Engineering Stochastic Processes I

Spring 2018

ORIE 5600: Financial Engineering with Stochastic Calculus I

Fall 2017

PROFESSIONAL SERVICE

- **Journal Reviewer:** Operations Research (3), Journal of Machine Learning Research, Transactions on Machine Learning Research, IEEE Transactions on Information Theory

- **Conference Reviewer & PC Member**

- International Conference on Machine Learning (ICML) 2020-2023
- International Conference on Learning Representations (ICLR) 2021, 2024
- International Conference on Artificial Intelligence and Statistics (AISTATS) 2021-2023
- Conference on Neural Information Processing Systems (NeurIPS) 2021-2023
- ACM conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO) 2022
- NeurIPS Workshop on Causal Inference Challenges in Sequential Decision Making 2021

- **Session Chair**

- INFORMS 2020 General Session (Stochastic Bandits)
- INFORMS 2023 General Session (Learning and Experimentation in Markets)
- INFORMS 2023 General Session (Learning and Decision-Making for Platforms)
- Cornell University ORGA (Operations Research Graduate Association) Tech Liaison

2019-2020

INVITED PRESENTATIONS

Fast Rates for Contextual Linear Optimization

University of Illinois Urbana-Champaign - Industrial & Enterprise Systems Engineering, Champaign, IL 02/2023

Massachusetts Institute of Technology - Sloan School of Management, Cambridge, MA

02/2023

University of Oxford - Saïd Business School, Virtual

01/2023

University of Toronto - Rotman School of Management, Toronto, Canada

01/2023

Columbia University - Industrial Engineering and Operations Research, New York, NY

01/2023

University of Illinois Chicago - Information and Decision Sciences, Chicago, IL

01/2023

Johns Hopkins University - Carey Business School, Baltimore, MD

01/2023

Duke University - Fuqua School of Business, Durham, NC

01/2023

Carnegie Mellon University - Tepper School of Business, Pittsburgh, PA

12/2022

University of British Columbia - Sauder School of Business, Vancouver, Canada

12/2022

Cornell University - SC Johnson College of Business, Ithaca, NY

12/2022

Northwestern University - Industrial Engineering & Management Sciences, Evanston, IL

12/2022

University College London - School of Management, Virtual

11/2022

London Business School, Virtual

11/2022

University of Texas at Austin - McCombs School of Business, Austin, TX

11/2022

INFORMS Annual Meeting, Indianapolis, IN

10/2022

Cornell ORIE Young Researchers Workshop, Ithaca, NY

10/2022

NYC Operations Day (Poster), New York, NY

04/2022

ORIE PhD Colloquium at Cornell Tech, New York, NY

04/2022

INFORMS Optimization Society Conference, Greenville, SC

03/2022

Cornell ORIE Young Researchers Workshop (Poster), Ithaca, NY

10/2021

Fast Rates for the Regret of Offline Reinforcement Learning

RL Theory Seminar, Virtual	11/2021
INFORMS Annual Meeting, Anaheim, CA	10/2021
16th INFORMS Workshop on Data Mining and Decision Analytics, Anaheim, CA	10/2021
34th Annual Conference on Learning Theory, Boulder, CO	08/2021

DTR Bandit: Learning to Make Response-Adaptive Decisions with Low Regret

INFORMS Annual Meeting, Virtual	11/2020
15th INFORMS Workshop on Data Mining and Decision Analytics, Virtual	11/2020

Smooth Contextual Bandits: Bridging the Parametric and Non-differentiable Regret Regimes

INFORMS Healthcare Conference, Toronto, Canada	07/2023
Rising Scholars Conference (Chicago Booth), Virtual	11/2022
33rd Annual Conference on Learning Theory, Virtual	07/2020
INFORMS Annual Meeting, Seattle, WA	10/2019
14th INFORMS Workshop on Data Mining and Decision Analytics, Seattle, WA	10/2019
Cornell ORIE Young Researchers Workshop, Ithaca, NY	10/2019

OTHERS

- *Programming*: Python (PyTorch), C/C++, R, Julia.
- *Languages*: Chinese (native), English (fluent), Japanese (N2)