

Yuchen Hu

My research focuses on guiding data-driven decision-making in complex environments using tools from causal inference, decision theory, and stochastic processes. I am particularly interested in addressing challenges that arise in the design and analysis of modern experiments.

CONTACT DETAILS

Address: 475 Via Ortega, Stanford, CA 94305
Telephone: (617)510-9810
E-mail: yuchenhu@stanford.edu
Website: <https://yuchenhhu.github.io/>

EDUCATION

Ph.D. in Management Science & Engineering 2020 – present
Stanford University, Stanford, CA
GPA: 4.1/4.3
Thesis Advisor: Stefan Wager
Committee: Stefan Wager, Johan Ugander, Ramesh Johari

M.S. in Biostatistics 2018 – 2020
Harvard University, Cambridge, MA
GPA: 4.0/4.0
Thesis Advisor: Rui Wang

B.Sc. in Applied Mathematics 2014 – 2018
Hong Kong Polytechnic University, Hong Kong
GPA: 4.0/4.0
Capstone Project Advisor: Binyan Jiang

INDUSTRY EXPERIENCE

- Research Intern, *Adobe*, San Jose, CA, Summer 2023
- Data Science Intern, *Quantco*, Boston, MA, Summer 2022
- Data Science Intern, *Nielsen*, Shanghai, China, Summer 2018
- Research Intern, *Everbright Securities*, Shanghai, China, Summer 2017

AWARDS

- Tom Ten Have Award Honorable Mention, 2023
- V.K. Hsu & Sons Foundation Ltd. Scholarship, 2018
- Hong Kong Polytechnic University Full Entry Scholarship, 2014-2018
- HKSAR Government Scholarship Fund - Reaching Out Award, 2015-2016

TEACHING

- ECON293/MGTECON634 Machine Learning and Causal Inference, Teaching assistant, Spring 2020-2023.
- MS&E226 Fundamentals of Data Science, Teaching assistant, Autumn 2021-2022.
- BST224 Survival Methods in Clinical Research, Teaching assistant, Summer 2018-2019.

JOB MARKET PAPER

1. **Yuchen Hu** and Stefan Wager. Switchback Experiments under Geometric Mixing. arXiv preprint arXiv:2209.00197.

JOURNAL ARTICLES

6. **Yuchen Hu** and Lawrence M. Wein. Analysis of the Privacy-Performance Tradeoff of Reference Testing in Forensic Investigative Genetic Genealogy. *Journal of Forensic Sciences*, forthcoming.
5. **Yuchen Hu** and Stefan Wager. Off-Policy Evaluation in Partially Observed Markov Decision Processes. *Annals of Statistics*, 51(4), 2023.
4. **Yuchen Hu**, Shuangning Li, and Stefan Wager. Average Direct and Indirect Causal Effects under Interference. *Biometrika*, 109(4), 2022.
3. Ante Bing*, **Yuchen Hu***, Melanie Prague, Alison L. Hill, Jonathan Z. Li, Ronald J. Bosch, Victor DeGruttola, and Rui Wang. Comparison of Empirical and Dynamic Models for HIV Viral Load Rebound after Treatment Interruption. *Statistical Communications in Infectious Diseases*, 12(s1), 2020. (*: Equal contribution)
2. Rui Wang, Ante Bing, Cathy Wang, **Yuchen Hu**, Ronald J. Bosch, and Victor DeGruttola. A Flexible Nonlinear Mixed Effects Model for HIV Viral Load Rebound after Treatment Interruption. *Statistics in Medicine*, 39(15), 2020.
1. Sara N. Bleich, Jesse C. Jones-Smith, Marian P. Jarlenski, Julia A. Wolfson, Johannah M. Frelier, Huiru Tao, **Yuchen Hu**, Anna Zink, Caroline G. Dunn, Mark J. Soto, and Bradley J. Herring. Impact of Changes in Chain Restaurant Calories over Time on Obesity Risk. *Journal of General Internal Medicine*, 35(6), 2020.

CONFERENCE ARTICLES

2. **Yuchen Hu**, Henry Zhu, Emma Brunskill, and Stefan Wager. Minimax-Regret Sample Selection in Randomized Experiments. *ACM Conference on Economics and Computation (EC)*, 2024.
1. Ruohan Zhan, Shichao Han, **Yuchen Hu**, and Zhenling Jiang. Estimating Treatment Effects under Recommender Interference: A Structured Neural Networks Approach. *ACM Conference on Economics and Computation (EC)*, 2024.

ACADEMIC SERVICES

- Journal Peer Review: *Annals of Statistics* (2), *Journal of American Statistical Association* (2), *Biometrika* (2), *The Journal of the Royal Statistical Society, Series B* (1), *Operations Research* (1), *Management Science* (4), *Econometrica* (1), *Statistics in Medicine* (1), *INFORMS TutORials in Operations Research* (1).
- Conference Peer Review: *NeurIPS 2023*, *ICLR 2024*, *ICML 2024*

TALKS AND WORKSHOPS

3. Minimax-Regret Sample Selection in Randomized Experiments.
 - *The Bravo Center/JEA/SNSF Workshop on Using Data to Make Decisions*, Brown University, Providence, July 2024.
 - *The Twenty-Fifth ACM Conference on Economics and Computation (EC'24)*, Yale University, New Haven, July 2024.
 - *Stanford Causal Science Center Conference on Experimentation*, Stanford, CA, May 2024.
 - *American Causal Inference Conference*, Seattle, WA, May 2024.
 - *Algorithmic Fairness Seminar, Stanford University*, Stanford, CA, April 2024.
 - *Stanford Causal Science Center Conference*, Stanford, CA, November 2023.
 - *Metrics Lunch, Stanford University*, Stanford, CA, November 2023.

- *Data Driven Research Group, Stanford University*, Stanford, CA, May 2023.
 - *Stanford Data Science Conference*, Stanford, CA, May 2023.
2. Switchback Experiments under Geometric Mixing.
- *Stanford Causal Inference Guest Lecture*, Stanford, CA, June 2024.
 - *American Causal Inference Conference*, Seattle, WA, May 2024.
 - *OR Seminar, Stanford University*, Stanford, CA, April 2024.
 - *Metrics Lunch, Stanford University*, Stanford, CA, April 2024.
 - *The 14th POMS-HK International Conference*, HKUST, Hong Kong SAR, January 2024.
 - *IMS Young Mathematical Scientist Forum*, NUS, Singapore, November 2023.
 - *INFORMS Annual Meeting*, Phoenix, AZ, October 2023.
 - *Experimentation and Causal Inference in the Tech Sector*, Stanford, CA, June 2023.
 - *American Causal Inference Conference*, Austin, TX, May 2023.
 - *Data Driven Research Group, Stanford University*, Stanford, CA, October 2022.
1. Off-Policy Evaluation in Partially Observed Markov Decision Processes.
- *Joint Statistical Meetings*, Toronto, Canada, August 2023.
 - *Joint Statistical Meetings*, Washington, DC, August 2022.
 - *American Causal Inference Conference*, Berkeley, CA, May 2022.
 - *Causal Inference Group, Stanford University*, Stanford, CA, March 2022.
 - *Research in Operations, Information and Technology, Stanford University*, April 2022.