YICHUN HU

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EDUCATION

Cornell University   *08/2017 - 05/2022*
Ph.D. Candidate in Operations Research, minor in Applied Mathematics
Advisor: Nathan Kallus

Peking University   *09/2013 - 06/2017*
B.S. in Mathematics and Applied Mathematics
B.A. in Economics

RESEARCH INTERESTS

Data-driven Decision Making, Sequential Decision Making, Bandit/RL, Causal Inference.

RESEARCH PAPERS

Journal Publications

– <u>Y. Hu</u>, N. Kallus, X. Mao. Fast Rates for Contextual Linear Optimization. *Management Science, accepted.*

– <u>Y. Hu</u>, N. Kallus, X. Mao. Smooth Contextual Bandits: Bridging the Parametric and Non-differentiable Regret Regimes. *Operations Research (Articles in Advance), 2022.*

  * *Finalist, INFORMS Applied Probability Society 2020 Best Student Paper Competition.*

Journal Papers Under Review/Revision

– <u>Y. Hu</u>, N. Kallus, M. Uehara. Fast Rates for the Regret of Offline Reinforcement Learning. *Under review.*

– <u>Y. Hu</u>, N. Kallus. DTR Bandit: Learning to Make Response-Adaptive Decisions with Low Regret. *Major Revision at Journal of the American Statistical Association.*

Peer Reviewed Conference Publications

– <u>Y. Hu</u>, N. Kallus, M. Uehara. Fast Rates for the Regret of Offline Reinforcement Learning. *34th Conference on Learning Theory (COLT), 2021.*

– <u>Y. Hu</u>, N. Kallus, X. Mao. Smooth Contextual Bandits: Bridging the Parametric and Non-differentiable Regret Regimes. *33rd Conference on Learning Theory (COLT), 2020.*

Workshop Papers

– M. Garrard, H. Wang, B. Letham, S. Singh, A. Kazerouni, S. Tan, Z. Wang, M. Huang, <u>Y. Hu</u>, C. Zhou, N. Zhou, E. Bakshy. Practical Policy Optimization with Personalized Experimentation. *NeurIPS Workshop on Causal Inference Challenges in Sequential Decision Making: Bridging Theory and Practice, 2021.*

WORK EXPERIENCE

Facebook   *Menlo Park, CA (Remote)*
Research Engineer Intern, Core Data Science (Adaptive Experimentation)   *05/2021-08/2021*
• Researched on multi-objective contextual bandit learning and value model tuning in personalized experiments.
• Proposed algorithm has been launched in Facebook's personalized experiment platform.

Google   *Mountain View, CA (Remote)*
Data Scientist Intern, Google Play   *05/2020-08/2020*
• Researched on causal methods to analyze the impact of app usage on the retention rate of Google Play Pass.

SELECTED HONORS

Finalist, Applied Probability Society Best Student Paper Competition, INFORMS	*2020*
Sherri Koenig Stuewer Graduate Fellowship, Cornell University	*2018*
Excellent Graduate Award, Peking University	*2017*
Award for Academic Excellents, Peking University	*2015,2016*
May Fourth Scholarship, Peking University	*2016*
Kwuang-Hua Scholarship, Peking University	*2015*

SELECTED TALKS

Fast Rates for Contextual Linear Optimization
INFORMS Optimization Society Conference, Greenville, SC	*(scheduled) 03/2022*

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 (COLT 2021), 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
33rd Annual Conference on Learning Theory (COLT 2020), 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*

TEACHING EXPERIENCE

Cornell University, Teaching Assistant
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 (2), Journal of Machine Learning Research (1), Transactions on Machine Learning Research
- Conference Reviewer & PC Member: ICML 2020/2021/2022, ICLR 2021, AISTATS 2021/2022, NeurIPS 2021, NeurIPS 2021 Workshop on Causal Inference Challenges in Sequential Decision Making
- Session Chair: INFORMS 2020 General Session (Stochastic Bandits)
- Cornell University ORGA (Operations Research Graduate Association) Tech Liaison   *2019-2020*

SKILLS

- *Programming*: Python (PyTorch), R, Julia.