

# YANGYI LU

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## EDUCATION

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### University of Michigan, Ann Arbor

Sept. 2018 - May 2022 (expected)

- Ph.D. in Statistics

### Carnegie Mellon University

Aug. 2016 - Jan. 2018

- M.S. in Machine Learning, School of Computer Science

### Nanjing University

Aug. 2012 - Jun. 2016

- B.S. in Statistics, Department of Mathematics

## PUBLICATION

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1. **Yangyi Lu**, Amirhossein Meisami, Ambuj Tewari (2022). Efficient reinforcement learning with prior causal knowledge. **Conference on Causal Learning and Reasoning (CLeaR)**
2. **Yangyi Lu**, Amirhossein Meisami, Ambuj Tewari (2021). Causal Bandits with Unknown Graph Structure. **Conference on Neural Information Processing Systems (NeurIPS)**
3. Lambertus Klei, Lora Lee McClain, ... **Yangyi Lu**, ... Kathryn Roeder, Bernie Devlin (2021). How Rare and Common Risk Variation Jointly Affect Liability for Autism Spectrum Disorder. **Molecular Autism volume 12, Article number: 66**
4. **Yangyi Lu**, Amirhossein Meisami, Ambuj Tewari (2021). Low-Rank Generalized Linear Bandit Problems. **International Conference on Artificial Intelligence and Statistics (AISTATS)**
5. **Yangyi Lu**, Amirhossein Meisami, Ambuj Tewari, Zhenyu Yan (2020). Regret Analysis of Bandit Problems with Causal Background Knowledge. **Conference on Uncertainty in Artificial Intelligence (UAI)**

## PREPRINT (\* INDICATES EQUAL CONTRIBUTIONS)

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1. Huitian Lei, **Yangyi Lu**, Ambuj Tewari, Susan A. Murphy (2022). An Actor-Critic Contextual Bandit Algorithm for Personalized Mobile Health Interventions.
2. **Yangyi Lu\***, Ziping Xu\*, Ambuj Tewari (2021). Bandit Algorithms for Precision Medicine. **To appear as a chapter in the Handbook of Statistical Methods for Precision Medicine.**

## PROFESSIONAL EXPERIENCE

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### Bytedance AI Lab: Research Intern

May 2021 - Aug. 2021

- Proposed new collaborative ranking estimation methods based on parametric modeling, deep quantile regression, and neural likelihood. The new methods significantly improved the ranking performance and reduced the computation complexity. Also led to improved top-k retrieval performance when combining with rank-based reweighting.

### Adobe Inc.: Data Science Intern

June 2019 - Aug. 2019

- Proposed efficient bandit algorithms by incorporating causal knowledge. The new algorithms are faster than existing methods both theoretically and empirically and led to a paper published in UAI 2020.

### AT&T Labs: Machine Learning Intern

June 2018 - Aug. 2018

- Identified and resolved statistical issues for applying regression trees to network outage event characterization. The resulting statistical techniques were subsequently incorporated into network outage characterization tool developed by the Network Cloud and Infrastructure Business Unit. This project finally led to a patent in AT&T.

## SERVICES

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Reviewer for ICML, NeurIPS, AISTATS, ALT, ISIT.

## SKILLS

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**Programming Language:** Python, MATLAB, R.

**Language:** English (proficient), Mandarin (native).