Hannah Li

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ACADEMIC APPOINTMENTS

Columbia Business School
Assistant Professor   July '23 – Present

Massachusetts Institute of Technology
Postdoctoral Associate   Sep '22 – July '23

EDUCATION

Stanford University
Ph.D. Candidate in Operations Research (Management Science & Engineering)   June 2022

Research: I developed statistical methodology for online marketplaces, using techniques from operations research, causal inference, and economics. I also worked on education applications and utilized operations research techniques to design accessible education systems. I was advised by Prof. Ramesh Johari and Prof. Gabriel Weintraub.

Awards: Dantzig Dissertation Award 2023, MSOM Service Management SIG Best Paper Award 2023, INFORMS DEI Best Student Paper Award 2022, RMP Jeff McGill Student Paper Award 2021 (2nd Place), Best Student Paper Award at ACM EAAMO '21, Dantzig-Lieberman Operations Research Fellowship, MS&E Department Service Award

Pomona College   2016
Bachelor of Arts in Mathematics
Thesis: The Manickam-Miklos-Singhi Conjecture in Combinatorics (*Received Distinctions*)
Relevant Coursework: Combinatorics, graph theory, discrete math, abstract algebra, Galois theory
Awards: Llewellyn Bixby Prize for Excellence in Mathematics; Phi Beta Kappa

Budapest Semester in Mathematics- Budapest, Hungary (*Received High Honors*)   2015

PAPERS

- "Standardized Tests and Affirmative Action: The Role of Bias and Variance."
    - With Nikhil Garg and Faidra Monachau
    - Working paper, Major Revision at *Management Science.*
    - Preliminary version accepted to *ACM Conference in Fairness, Accountability, and Transparency Conference (FAccT), 2021*
    - INFORMS DEI Best Student Paper Award '22
    - Best Paper with a Student Presenter Award at *ACM Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO) '21.*
- "Experimental Design in Two-Sided Platforms: An Analysis of Bias."
    - With Ramesh Johari, Inessa Liskovich, and Gabriel Weintraub

- o Published in *Management Science* (2022)
- o Featured post on the [Management Science Blog](#)
- o Part of the winning thesis for the *INFORMS Dantzig Dissertation Award 2023*
- o *MSOM Service Management SIG Best Paper Award 2023*
- o *RMP Jeff McGill Student Paper Award (2021),* 2nd Place
- o Presented in *MSOM Service SIG 2021*
- o Presented in *Conference on Web and Internet Economics (WINE): Spotlights Beyond Wine*
- o Preliminary version presented in *ACM Conference on Economics and Computation (EC '20).*
- "Interference, Bias, and Variance in Two-Sided Marketplace Experimentation: Guidance for Platforms."
  - o With Geng Zhao, Ramesh Johari, and Gabriel Weintraub.
  - o Accepted to *TheWebConf (WWW) '22*.
  - o Presented in *EC '20 Workshop on Design of Online Platforms.*
- "Decision Making using Platform Experiments: Errors Under Interference."
  - o In preparation.
- "Exploration vs. Exploitation in Team Formation."
  - o With Ramesh Johari, Vijay Kamble, and Anilesh K. Krishnaswamy.
  - o Accepted to *Conference on Web and Internet Economics (WINE),* 2018.
- "Novel Characterization and Live Imaging of Schlemm's Canal Expressing Prox-1."
  - o With Tan Truong, Young-Kwon Hong, and Lu Chen.
  - o *PLoS One,* 2014.

INDUSTRY EXPERIENCE

Vinted
Research Consultant   2021-2022
Launched experiments designed to reduce interference bias.

Common App
Volunteer Consultant   2021-2022
Using data science to promote equitable and accessible college education.

Airbnb
Data Science Intern   Jun '19 – Sep '19
Implementing causal inference methods to assess marketplace features.

Opendoor
Data Science Intern   Jun '18 – Sep '18
Implementing causal inference methods to optimize real estate pricing.

State Street Global Advisors / Worcester Polytechnic Institute
Math Finance Intern/Researcher   May '14– Aug '14
Developing liquidity metrics to assess financial portfolio risk.

TEACHING EXPERIENCE

Teaching Assistant for the following classes.

Stanford University (Graduate Classes)
- Foundations of Data Science, Fall '19, Fall '20, and Fall '21. (Stanford Management Science & Engineering)
- Data Science for Online Marketplaces, Spring '19. (Stanford Graduate School of Business)

Pomona College (Undergraduate Classes)
- Abstract Algebra
- Operations Research
- Calculus II Honors

AWARDS AND RECOGNITION

- INFORMS Dantzig Dissertation Award (2023) for the "best dissertation in any area of operations research and the management sciences that is innovative and relevant to practice"
- INFORMS MSOM Service Management SIG Best Paper Award (2023)
- INFORMS DEI Best Student Paper Award (2022), inaugural award
- INFORMS RMP Jeff McGill Student Paper Award (2021), 2nd place
- *ACM EAAMO* Best Student Paper Award '21
- Dantzig-Lieberman Operations Research Fellowship (Stanford University)
- Management Science & Engineering Department Service Award (Stanford University)
- Llewellyn Bixby Prize for excellence in mathematics (Pomona College)
- Phi Beta Kappa
- National Merit Scholar

SERVICE AND OUTREACH

Reviewer
- *Management Science*
- *Journal of Causal Inference*
- *Workshop on Platform Analytics '24*
- *MIT Conference on Digital Experimentation*
- *WINE*
- *WWW*
- *ACM FAccT*
- *ACM EC Conference*
- *ACM EAAMO*
- EC'21 Operations of People-Centric Systems Workshop

Conferences, Workshop, and Seminar Organizing
- Session Chair for INFORMS 2020-2023
- AsuFest 2023
- Stanford Research on Algorithms, Incentives, and Networks (RAIN) Seminar

Service and Outreach
- Senior student mentor at *ACM Economics and Computation (EC '20 and EC '21)*
- Mentor, Stanford Data Science Inclusive Mentoring program
- Stanford MS&E department liaison and student mentor
- Pomona College Math Department liaison

PRESENTATIONS

"Scaling up Healthcare Interventions using Experimentation"
- MIT Conference in Digital Experimentation
- INFORMS Annual Meeting 2023
- INFORMS APS 2023
- AsuFest 2023
- Marketplace Innovation Workshop 2023
- INFORMS Applied Probability Society Conference 2023

"Platform Experimentation and Decision-Making Under Marketplace Interference"
- INFORMS RMP 2023
- ACM SIGMETRICS Workshop on "Causal Inference for Engineers"
- Airbnb Academic Collaborators Seminar 2023
- Workshop on Mathematical Social Science 2023
- Conference on Artificial Intelligence, Machine Learning, and Business Analytics 2022
- Simons Workshop on Quantifying Uncertainty: Stochastic, Adversarial, and Beyond 2022
- Marketplace Innovation Workshop 2022
- INFORMS Annual Meeting 2021
- Cornell Young Researchers Workshop 2021

"Interference, Bias, and Variance in Marketplace Experimentation"
- MIT Conference on Digital Experimentation (CODE) 2021.

"Experimental Design in Two-Sided Platforms: An Analysis of Bias"
- American Causal Inference Conference 2022
- WINE '21: Spotlights Beyond Wine
- Stanford Causal Science Center
- 2021 Conference on Digital Experimentation (CODE)
- INFORMS MSOM SIG Conference 2021
- Marketplace Innovations Workshop (MIW) 2021
- Vinted Data Science Team
- Stanford Data Science Lab
- INFORMS Annual Meeting 2020
- Lyft Data Science Team
- Kellogg-Wharton Operations Management Workshop
- ACM Conference on Economics and Computation (EC) 2020
- Revenue Management and Pricing Live Paper Series
- 2020 Conference on Digital Experimentation (CODE)
- Facebook Core Data Science Seminar
- Stanford Causal Inference Seminar

"Dropping Standardized Testing for Admissions: Differential Variance and Access"
- INFORMS MSOM Conference 2021

"Exploration vs. Exploitation in Team Formation"
- Informs Annual Meeting 2020.
- Conference on Web and Internet Economics 2018
- INFORMS Annual Meeting 2018
- Upwork Data Science Seminar
- Stanford Social Algorithms Seminar

OTHER EXPERIENCE

Writer for College Student Blog
Student Voices, Pomona College   Jan '15 - May '15

Research Assistant
UC Berkeley Vision Sciences- Berkeley, CA   May - Aug '13

News Writer
The Student Life, Pomona College   Aug '12 - May '13

OUTSIDE ACTIVITIES

Columbia Business School requires faculty members to disclose any activities that might present a real or apparent conflict of interest. I have no outside activities to report.