Xiaole (Alyssa) Liu

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Leonard N. Stern School of Business, New York University

Education

2020 – Present	**New York University Stern School of Business**, New York, NY Ph.D. candidate in Operations Management Advisors: Mor Armony, Jing Dong, Rouba Ibrahim.
2020	**Columbia University**, New York, NY M.Sc. in Operations Research
2018	**University of Michigan-Dearborn**, MI M.S.E. in Industrial and System Engineering, with High Distinction
2016	**Xi'an Jiaotong University**, Xi'an, Shaanxi, China B.Mgt. in Management Science and Engineering (Division: Electronic and Information Engineering) The Special Class for the Gifted Young of China (XJTU)

Research Interests

Healthcare operations; data-driven decision making and policy learning; causal inference and machine learning in operations; stochastic modeling; efficiency and fairness in technology adoption; empirical and applied research in collaboration with healthcare providers.

Papers

2025	**Measuring the Heterogeneous Effect of Emergency Department Boarding on Inpatient Length of Stay: Toward Efficient and Equitable Inpatient Bed Assignment** [Link] · *Job Market Paper* Xiaole (Alyssa) Liu, Jing Dong, Yosef Berlyand, Martin S. Copenhaver. Under Review, *Management Science*.
2024	**Telemedicine versus In-Person Outpatient Care: Equilibrium, Capacity, and Quality Differentiation** [Link] Xiaole (Alyssa) Liu, Mor Armony. Major Revision, *Manufacturing & Service Operations Management*. Accepted to the M&SOM Service Management SIG 2025.

2025	**Proactive Admission Control for Emergency Departments: Integrating Demand and Inpatient Admission Delay Predictions**
	Ruicheng Ao, Jing Dong, Xiaole (Alyssa) Liu.
	In Preparation for Submission to *Operations Research, Available upon Request*.

2025   **Fair and Efficient Outpatient Scheduling with Stratified No-Show Prediction**
Xiaole (Alyssa) Liu, Jing Dong, Rouba Ibrahim.
In Preparation for Submission, *Available upon Request*.

2019   **Private and Public Incentives for Hospitals to Improve the Quality and Reduce the Cost of Care** [Link]
Xiaole (Alyssa) Liu, Kevin Schulman, David Scheinker.
Health Management Policy and Innovation, Volume 4, Issue 3.

Research In Progress

From Overflow to Oversight: The Strategic Role of Hallway Beds in Hospital Patient Flow
Xiaole (Alyssa) Liu, Jing Dong, Martin S. Copenhaver.

Awards and Honors

2024	**W. Edwards Deming Fellowship**, NYU Stern
2024	**Ph.D. Alumni Fellowship**, NYU Stern
2024	**Teaching Commendation**, NYU Stern Doctoral Program
2020	**Doctoral Fellowship**, NYU Stern *(tuition and stipend for five years)*
2020	**Operations Research Graduate Fellowship**, Columbia University
2018	**Honor Scholar**, UM-Dearborn *(recognize up to 1 student per program)*
2016	**Graduate Student Instructor Fellowship**, UM-Dearborn *(tuition and stipend for full program)*
2014	**Suzhou Industrial Park Scholarship**, XJTU
2013	**National Motivational Scholarship**, XJTU, Ministry of Education China

Research Experience and Industry Collaboration

2023 – Present   **Massachusetts General Hospital**, Boston, MA
PhD Student Researcher, Healthcare Systems Engineering.

2022   **Waitwhile**, San Francisco, CA
Research Consultant, Queue Management Software for the Modern Enterprise.

2019   **Stanford University**, Stanford, CA
Research Assistant, Systems Utilization Research For (SURF) Stanford Medicine.

Teaching Experience

Instructor

2024	OPMG-UB.1: Operations Management NYU Stern undergraduate core, class size: 19 Teaching evaluation: 4.8/5.0 *with Teaching Commendation*.

Teaching Assistant

2023, 2025	COR1-GB.2114: Operations (NYU Stern M.Sc.; class size: 75, 50)
2022	SHBI-GB.7301: Stochastic Modeling & Simulation (NYU Stern M.Sc.; 106)
2022	OPMG-UB.1: Operations Management (NYU Stern undergraduate core; 120)
2020	IEOR E4729: Model-Based Trading: Theory and Practice (Columbia M.Sc.; 81)
2019	IEOR E4150: Introduction to Probability and Statistics (Columbia M.Sc.; 25)
2016 – 2018	IMSE 561: Total Quality Management and Six Sigma (UM-Dearborn M.S.E.)
2017	IMSE 4585: Simulation in Systems Design (UM-Dearborn undergraduate)
2016	IMSE 511: Design and Analysis of Experiment (UM-Dearborn M.S.E.)

Industry Work Experience

2018	**Stellantis (Fiat Chrysler Automobile)**, Auburn Hills, MI Full-time Simulation Engineer, 2018 Driven Winner Award.
2015	**JD.com, Inc.**, Xi'an, Shaanxi, China Summer Intern, Inventory Management.

Selected Presentations

Measuring the Heterogeneous Effect of Emergency Department Boarding on Inpatient Length of Stay: Toward Efficient and Equitable Inpatient Bed Assignment

2025	INFORMS Annual Meeting, Atlanta, GA
2024	INFORMS Annual Meeting, Seattle, WA
2024	M&SOM Conference, Minneapolis, MN

Telemedicine versus In-Person Outpatient Care: Equilibrium, Capacity, and Quality Differentiation

2025	M&SOM Service Management SIG, London, UK
2023	INFORMS Annual Meeting, Phoenix, AZ
2023	M&SOM Conference, Montreal, Canada
2023	POMS Conference, Orlando, FL
2022	INFORMS Annual Meeting, Indianapolis, IN
2021	INFORMS Annual Meeting, virtual

Professional Services

2025	Referee: M&SOM Main Conference (Service Operations Track)
2024	Co-organizer: NYC Operations Day Joint PhD Colloquium
2022	Organizer: MOILS Seminar Series, NYU Stern

References

Mor Armony
Vice Dean for Faculty and Research
Harvey Golub Professor of Business Leadership
Professor of Technology, Operations & Statistics
Leonard N. Stern School of Business
New York University
Email: ma67@stern.nyu.edu

Jing Dong
DeRosa Family Associate Professor of Business
Decision, Risk, and Operations Division
Columbia Business School
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School of Management
University College London (UCL)
Email: rouba.ibrahim@ucl.ac.uk

Martin S. Copenhaver
Operations Researcher, Judy Reitz Capacity Command Center
Johns Hopkins Hospital
Assistant Professor of Emergency Medicine
Johns Hopkins University School of Medicine
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Ana Cecilia Zenteno Langle
Director of Data and Analytics
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Massachusetts General Hospital
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