

## Jiayu Kamessi Zhao

Operations Research Center  
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EDUCATION	<b>Massachusetts Institute of Technology</b> , Cambridge, MA Candidate for PhD in Operations Research 2020 - 2025 (Expected) GPA: 5.0/5.0 Advisor: Daniel Freund
	<b>Columbia University</b> , New York, NY 2016 - 2020 B.S. in Operations Research: Financial Engineering Summa Cum Laude
RESEARCH INTERESTS	My research focuses on platform operations and market design problems in online marketplaces. In tackling these challenges, my works lie at the intersection of online algorithms, stochastic decision-making, and game theory.
PAPERS	<i>“Two-sided Platform Flexibility”</i> , with D. Freund and S. Martin. 2023. Working Paper.
	<i>“On the Supply of Autonomous Vehicles in Open Platforms”</i> , with D. Freund and I. Lobel. 2023. Under review.
	<i>“End-of-Horizon Load Balancing Problems: Algorithms and Insights”</i> , with D. Freund and C. Hssaine. 2023. Under review.
	<i>“Overbooking with Bounded Loss”</i> , with D. Freund. 2022. Mathematics of Operations Research 48(3): 1344-1363. An earlier version appeared at the Twenty-Second ACM Conference on Economics and Computation (EC’21).
SELECTED TALKS	<i>“On the Supply of Autonomous Vehicles in Open Platforms.”</i> Presented at MSOM Conference 2023; Marketplace Innovation Workshop 2023; INFORMS 2022.
	<i>“Overbooking with Bounded Loss.”</i> Presented at EC’21; INFORMS 2021; ORC Student Seminar, 2022.
WORK EXPERIENCE	<b>Uber Technologies, Inc.</b> , San Francisco, CA Summer 2023 <i>Applied Scientist PhD Intern</i> Evaluated the convex program employed in UberEats’ real-time pricing algorithm; devised solutions to enhance the chained supply model used for dampening surge demand.
	<b>AllianceBernstein L.P.</b> , New York, NY Summer 2019 <i>Quantitative Research Intern</i> Formulated a market timing strategy to adopt stock-bond relative return before month end as a trading signal by verifying the existence of month-end re-balancing flows.
	<b>Columbia Business School</b> , New York, NY Summer 2018 <i>Summer Research Intern</i> Validated the tendency for active funds to trade against passive flows by applying econometric and statistical tools to historical data on mutual fund portfolio disclosures.
PROFESSIONAL SKILLS	<i>Programming Skills:</i> Python, Julia, Gurobi, SQL, MATLAB, R <i>Softwares:</i> L <sup>A</sup> T <sub>E</sub> X, Word, Excel, PowerPoint <i>Languages:</i> English (proficient), Mandarin (native)
TEACHING EXPERIENCE	<b>Massachusetts Institute of Technology</b> , Cambridge, MA 2022-2023 <i>Teaching Assistant for (i) Common Experience in OR and (ii) Intro to Operations</i>

Held recitation sessions and prepared materials on (i) deep-learning for computer vision and NLP models and (ii) pricing, contracting, and inventory management.

**Columbia University**, New York, NY

Fall 2018

*Teaching Assistant* for Ordinary Differential Equations/Probability for Engineers

Graded courses materials, held office hours, drafted homework solutions, and administered course logistics.