

CONTACT INFORMATION	5807 S. Woodlawn Avenue Chicago, IL 60637 Tel: (+1)773-595-8582	E-mail: yzhong0@chicagobooth.edu Linkedin: https://www.linkedin.com/in/yueyang-zhong Personal Website: https://yzhong0.github.io/yueyangzhong/
RESEARCH INTERESTS	<p>My primary research interests are stochastic modeling of service systems with consideration of human strategic behavior and unknown systemic information. My research uses tools from applied probability, game theory, and learning theory (in particular, online learning and reinforcement learning).</p> <p>I am currently working on (i) system design optimization problems in queueing systems with strategic customers and strategic servers; and (ii) online learning problems in queueing systems in the face of unknown system parameters, such as learning to schedule in multiclass many-server queues.</p>	
EDUCATION	<p>The University of Chicago Booth School of Business Chicago, IL</p> <ul style="list-style-type: none"> Ph.D. in Operations Management (Minor in Applied Probability) 2023 (<i>expected</i>) Advisor: Professor Amy R. Ward Master of Business Administration 2023 (<i>expected</i>) <p>Tsinghua University Beijing, China</p> <ul style="list-style-type: none"> B.S. in Industrial Engineering (Minor in Economics) with Honors 2018 	
PUBLICATIONS & PAPERS UNDER REVIEW	<ol style="list-style-type: none"> [1] Yueyang Zhong, John R. Birge, Amy R. Ward. 2022. Learning the Scheduling Policy in Time-Varying Multiclass Many Server Queues. Major Revision at <i>Operations Research</i>. [Link] [2] Yueyang Zhong, Ragavendran Gopalakrishnan, Amy R. Ward. 2021. Behavior-Aware Queueing: The Finite-Buffer Setting with Strategic Servers. Minor Revision at <i>Operations Research</i>. [Link] [3] Yueyang Zhong, Zhixi Wan, Zuo-Jun Max Shen. 2020. Queueing Versus Surge Pricing Mechanism: Efficiency, Equity, and Consumer Welfare. Reject and Resubmit at <i>Management Science</i>. [Link] [4] Yueyang Zhong, Amy R. Ward, Amber L. Puha. 2022. Asymptotically Optimal Idling in the $GI/GI/N+GI$ Queue. Published in <i>Operations Research Letters</i>. [Link] [5] Yueyang Zhong, YeeMan Bergstrom, Amy R. Ward. 2020. Data-Driven Market-Making via Model-Free Learning. Published in <i>In Proceedings of the Twenty-Ninth International Joint Conference on Artificial Intelligence (IJCAI-20): Special Track on AI in FinTech</i>. [Link] 	
WORK IN PROGRESS	<ol style="list-style-type: none"> [a] Yueyang Zhong, Ragavendran Gopalakrishnan, Amy R. Ward. Some Properties of the Erlang B and C Formulae. 2022. <i>Working paper (available upon request)</i>. [b] Yueyang Zhong, Ragavendran Gopalakrishnan, Amy R. Ward. Behavior-Aware Queues with Strategic Arrivals and Strategic Servers. 2022. <i>In preparation</i>. [c] Yueyang Zhong, John R. Birge, Amy R. Ward. Learning to Schedule in Multiclass Many Server Queues with Abandonment: An Instance-Independent Regret. 2022. <i>In preparation</i>. [d] Yueyang Zhong, Ragavendran Gopalakrishnan, Amy R. Ward. An Experimental Investigation of Strategic Server Behavior in Queueing Contexts. 2022. <i>In progress</i>. [e] Yueyang Zhong. Online Advertising Strategy for Long-Term Good via Robust IV-Q-learning with Noisy Instruments. 2021. <i>Working paper (available upon request)</i>. 	
HONORS AND AWARDS	<ul style="list-style-type: none"> Finalist, Best Service Science Student Paper, INFORMS Conference on Service Science 2021 Ph.D. Fellowship, Booth School of Business 2018–2023 Distinguished Undergraduate Thesis Award, Tsinghua University 2018 Outstanding Undergraduate Award, Tsinghua University 2018 First Prize, Chinese Physics Olympiad 2016 	

PRESENTATIONS	<ul style="list-style-type: none"> • Learning the Scheduling Policy in Time-Varying Multiclass Many Server Queues [1] <ul style="list-style-type: none"> – <u>INFORMS Annual Meeting</u> Tuesday, October 18, 2022, 11:00AM-12:15PM, M-Indiana F (presented by Amy Ward) – International Conference of the Chinese Scholars Association for Management Science and Engineering (CSAMSE), Virtual <i>July 2022</i> – CORS/INFORMS International Conference, Vancouver, Canada <i>June 2022</i> – NYU MOILS Seminar, Virtual <i>Feb 2022</i> – INFORMS Annual Meeting, Anaheim, CA <i>Oct 2021</i> 	
	<ul style="list-style-type: none"> • Behavior-Aware Queueing: The Finite-Buffer Setting with Strategic Servers [2] <ul style="list-style-type: none"> – <u>INFORMS Annual Meeting</u> Sunday, October 16, 2022, 11:00M-12:15PM, CC-Room 142 – CORS/INFORMS International Conference, Vancouver, Canada <i>June 2022</i> – POMS, Virtual <i>April 2022</i> – MSOM Conference Meeting, Virtual <i>June 2021</i> – UCSD Stochastic Systems Seminar, Virtual <i>April 2021</i> – INFORMS Annual Meeting, Virtual <i>Nov 2020</i> – INFORMS Annual Meeting, Phoenix, AZ <i>Nov 2018</i> 	
	<ul style="list-style-type: none"> • Queueing Versus Surge Pricing Mechanism: Efficiency, Equity, and Consumer Welfare [3] <ul style="list-style-type: none"> – INFORMS Conference on Service Science, Virtual <i>Dec 2020</i> – MD4SG, Virtual <i>Aug 2020</i> – INFORMS Annual Meeting, Seattle, WA <i>Oct 2019</i> 	
	<ul style="list-style-type: none"> • Data-Driven Market-Making via Model-Free Learning [5] <ul style="list-style-type: none"> – POMS, Virtual <i>May 2021</i> – IJCAI-PRICAI, Virtual <i>Jan 2021</i> 	
TEACHING EXPERIENCE	The University of Chicago Booth School of Business Teaching Assistant (MBA Program)	
	Applied Regression Analysis (MBA core, 200+ students)	<i>Fall 2020, Fall 2021</i>
	<ul style="list-style-type: none"> • Assisted students with R during weekly office hours, and held weekly R sessions. 	
	Operations Management: Business Process Fundamentals (MBA core, 200+ students)	<i>Winter 2020</i>
	<ul style="list-style-type: none"> • Independently held two review sessions, and prepared midterm and final exam questions. 	
	Managing Service Operations (MBA elective, 80+ students)	<i>Winter 2022</i>
	<ul style="list-style-type: none"> • Supervised student groups developing case materials in collaboration with multiple companies for the final project, independently held final review session, and led weekly office hours. 	
INDUSTRY EXPERIENCE	Pinterest Labs Remote Research Intern, Ads Marketplace team <i>June 2021–Sept 2021</i>	
	<ul style="list-style-type: none"> • Designed and implemented a causal reinforcement learning algorithm to dynamically control the ad load leading to over 30% improvement in the yearly ad revenue from offline evaluation. 	
	Blue Fire Capital, LLC Chicago, IL Research Intern, Data Science Group <i>July 2019–Sept 2019</i>	
	<ul style="list-style-type: none"> • Developed a reinforcement learning based trading strategy, which passed the firm’s backtest with a Sharpe ratio above 3 and tripled the cumulative PnL over one month; see [5] for reference. 	
	DiDi Beijing, China Research Intern, Research Center of Innovation and Operations <i>Jan 2018–July 2018</i>	
	<ul style="list-style-type: none"> • Built a theoretical queueing model to explain the firm’s strategy transition from a surge pricing mechanism to a virtual queueing mechanism, which improves the passenger request fulfillment rate by 30.6% based on large-scale data with 10M+ users; see [3] for reference. 	

ACADEMIC SERVICE	<p>Ad hoc Reviewer: <i>Operations Research, Mathematics of Operations Research, Operations Research Letters, Service Science, ICSS</i></p> <p>Organizer: Session chair – INFORMS Annual Meeting 2021, CORS 2022.</p> <p>Mentor: Awaid Yasin (Master student, the University of Chicago Division of Social Sciences).</p> <p>Others: Tutor students in the MBA program at the University of Chicago Booth School of Business on MBA courses related to statistics and operations management.</p>
SELECTED PHD COURSES	<p>Linear Programming, Convex Optimization, Infinite Dimensional Optimization, Dynamic Programming, Approximate Dynamic Programming, Stochastic Optimization, Online Optimization, Real Analysis, Measure-Theoretic Probability I, III, Stochastic Processes, Brownian Motion and Stochastic Calculus, Queueing Theory, Dynamic Control of Stochastic Networks, Stochastic Calculus and Queueing Applications, Queueing Models for Service Operations Management, Networks: Introduction to Modeling and Analysis, Machine Learning, Statistical Inference, Foundations of Advanced Quantitative Marketing, Microeconomics I, II, Macroeconomics.</p>
SKILLS AND OTHERS	<p>Language: Chinese (native), English (fluent)</p> <p>Data/Statistical Tools: R, SQL</p> <p>Optimization Tools: CPLEX, GUROBI, AMPL</p> <p>Programming Language: Python, C/C++, JAVA</p> <p>Hobbies: Piano, Yoga, Sketch, Calligraphy, Traveling, Photography</p>
REFERENCES	<p>Professor Amy R. Ward The University of Chicago Booth School of Business 5807 S Woodlawn Ave Chicago, IL 60637 E-mail: amy.ward@chicagobooth.edu</p> <p>Professor John R. Birge The University of Chicago Booth School of Business 5807 S Woodlawn Ave Chicago, IL 60637 E-mail: John.Birge@chicagobooth.edu</p> <p>Professor Raga Gopalakrishnan Queen's University Stephen J.R. Smith School of Business 143 Union Street West Kingston, ON K7L 3N6, Canada E-mail: r.gopalakrishnan@queensu.ca</p>