August 2025

Curriculum Vitae

Cong (Alex) SHI

Email: congshi-at-bus-dot-miami-edu
Web: https://congshi-research.github.io/

Education

Massachusetts Institute of Technology (MIT), Cambridge, MA, USA — 9/2007 - 8/2012
Ph.D. in Operations Research (Thesis Advisor: Professor Retsef Levi)

National University of Singapore (NUS), Singapore — 9/2003 - 6/2007
B.S. in Mathematics (First Class Honors)

Academic Employment

University of Miami – Miami Herbert Business School
Professor of Management — 6/2025 - Present
Associate Professor of Management (with tenure) — 7/2023 - 5/2025

University of Michigan at Ann Arbor
Associate Professor of Industrial & Operations Engineering (with tenure) — 9/2019 - 6/2023
Assistant Professor of Industrial & Operations Engineering — 9/2012 - 8/2019

Professional Experiences

IBM Research Zurich, Rüeschlikon, Switzerland — 6/2010 - 9/2010
Research Fellow (Summer Intern)

Motorola Solutions Venture Capital, Sunnyvale, CA, USA — 6/2006 - 9/2006
Quantitative Analyst (Summer Intern)

Citigroup Global Markets, Singapore — 6/2005 - 9/2005
Quantitative Analyst (Summer Intern)

Selected Awards

Senior Research Award, Miami Herbert Business School, 2025

Amazon Research Award, 2021

Boeing Research Award, 2021

Finalist, INFORMS MSOM Data Driven Research Challenge, 2018

Third Place, INFORMS Junior Faculty Forum Paper Competition (JFIG), 2017

First Place, INFORMS George E. Nicholson Student Paper Competition, 2009

UM IOE Graduate Course Professor of the Year, University of Michigan, 2019

UM CoE Vulcans Education Excellence Award, University of Michigan, 2019

INFORMS Management Science Meritorious Service Award, 2018, 2019, 2021, 2023

Selected Student Paper Competitions (as advisor):

- Hao Yuan: Finalist, APS 2019
- Esmaeil Keyvanshokooh: Finalist, MSOM 2021

Research Interests

Theory: Approximation Algorithms, Bandits and Reinforcement Learning, Data-Driven Optimization

Applications: Supply Chain Management, Revenue Management, Healthcare Operations, Human-Robot Interaction

Journal Publications

(Authors underlined are Ph.D. students; authors underlined and asterisked are undergraduate students*.)

1. B. Chen, C. Shi,
"Tailored Base-Surge Policies in Dual-Sourcing Inventory Systems with Demand Learning",
Operations Research, Vol. 73(4), 1723-2295, 2025.
2. E. Keyvanshokooh, M. Zhalechian, C. Shi, M. P. Van Oyen, P. Kazemian,
"Contextual Learning with Online Convex Optimization: Theory and Application to Medical Decision-Making",
Management Science, to appear.
(Finalist, POMS College of Healthcare Operations Management (CHOM) Best Paper, 2022.)
(Finalist, INFORMS Manufacturing & Service Operations Management (MSOM) Best Student Paper, 2021.)
(Second Place, INFORMS Decision Analysis Society (DAS) Best Student Paper, 2021.)
(Finalist, INFORMS Health Applications Society (HAS) Best Student Paper, 2021.)
3. J. Tang, Z. Qi, E. X. Fang, C. Shi,
"Offline Feature-Based Pricing under Censored Demand: A Causal Inference Approach",
Manufacturing & Service Operations Management, Vol. 27(2), 339-678, 2025.
4. S. Li, Q. Luo, Z. Huang, C. Shi,
"Online Learning for Constrained Assortment Optimization under Markov Chain Choice Model",
Operations Research, Vol. 73(1), 109-138, 2025.
5. J. Tang, B. Chen, C. Shi,
"Online Learning for Dual-Index Policies in Dual Sourcing Systems",
Manufacturing & Service Operations Management, Vol. 26(2), 758-774, 2024.
6. H. Jia, C. Shi, S. Shen,
"Online Learning and Pricing for Service Systems with Reusable Resources",
Operations Research, Vol. 72(3), 1203-1241, 2024.
7. X. Chen, L. Liang, S. Miao, C. Shi,
"Play It Safe or Leave the Comfort Zone? Optimal Content Strategies
for Social Media Influencers on Streaming Video Platforms Decision Support Systems",
Decision Support Systems, Vol. 179, 114-148, 2024.
8. Y. Guo, X. J. Yang, C. Shi,
"TIP: A Trust Inference and Propagation Model in Multi-Human Multi-Robot Teams",
Autonomous Robots, Vol. 48(20), 1-20, 2024.
9. M. Zhalechian, E. Keyvanshokooh, C. Shi, M. P. Van Oyen,
"Data-Driven Hospital Admission Control: A Learning Approach",
Operations Research, Vol. 71(6), 2111-2129, 2023.
10. Y. Chen, C. Shi,
"Network Revenue Management with Online Inverse Batch Gradient Descent Method",
Production and Operations Management, Vol. 32(7), 2123-2137, 2023.
11. X. Chen, L. Jiang, S. Miao, C. Shi,
"Road to Micro-Celebration: The Role of Mutation Strategy of Micro-Celebrity in Digital Media",
New Media and Society, Vol. 25(12), 3455-3476, 2023.
12. M. Zhalechian, E. Keyvanshokooh, C. Shi, M. P. Van Oyen,
"Online Resource Allocation with Personalized Learning",
Operations Research, Vol. 70(4), 2138–2161, 2022.
13. S. Bhat, J. B. Lyons, C. Shi, X. J. Yang,
"Clustering Trust Dynamics in a Human-Robot Sequential Decision-Making Task",
IEEE Robotics and Automation Letters, Vol. 7(4), 8815-8822, 2022.

14. H. Jia, S. Shen, J. Garcia, C. Shi,
"Partner with a Third-Party Delivery Service or Not?
A Prediction-and-Decision Tool for Restaurants Facing Takeout Demand Surges During a Pandemic",
Service Science, Vol. 14(2), 139-155, 2022.

15. H. Jia, C. Shi, S. Shen,
"Multi-Armed Bandit with Sub-Exponential Rewards",
Operations Research Letters, Vol. 49(5), 728-733, 2021.

16. H. Yuan, Q. Luo, C. Shi,
"Marrying Stochastic Gradient Descent with Bandits: Learning Algorithms for Inventory Systems with Fixed Costs",
Management Science, Vol. 67(10), 6089–6115, 2021.
(Finalist, INFORMS Applied Probability Society (APS) Best Student Paper, 2019.)

17. B. Chen, X. Chao, C. Shi,
"Nonparametric Learning Algorithms for Joint Pricing and Inventory Control with Lost-Sales and Censored Demand",
Mathematics of Operations Research, Vol. 46(2), 405-833, 2021.

18. E. Keyvanshokooh, C. Shi, M. P. Van Oyen,
"Online Advance Scheduling with Overtime: A Primal-Dual Approach",
Manufacturing & Service Operations Management, Vol. 23(1), 246-266, 2021.

19. Y. Guo, C. Shi, X. J. Yang,
"Reverse Psychology in Trust-Aware Human-Robot Interaction",
IEEE Robotics and Automation Letters, Vol. 6(3), 4851-4858, 2021.

20. W. Chen, C. Shi, I. Duenyas,
"Optimal Learning Algorithms for Stochastic Inventory Systems with Random Capacities",
Production and Operations Management, Vol. 29(7), 1624-1649, 2020.

21. H. Zhang, X. Chao, C. Shi,
"Closing the Gap: A Learning Algorithm for the Lost-sales Inventory System with Lead Times",
Management Science, Vol. 66(5), 1962–1980, 2020.

22. R. Levi, G. Perakis, C. Shi, W. Sun,
"Strategic Capacity Planning Problems in Revenue Sharing Joint Ventures",
Production and Operations Management, Vol. 29(3), 664-687, 2020.

23. Y. Chen, C. Shi,
"Joint Pricing and Inventory Management with Strategic Customers",
Operations Research, Vol. 67(6), 1610-1627, 2019.
(Third Place, INFORMS Junior Faculty Forum Paper Competition (JFIG), 2017.)

24. C. Shi, Y. Wei, Y. Zhong,
"Process Flexibility for Multi-Period Production Systems",
Operations Research, Vol. 67(5), 1300-1320, 2019.

25. Y. Jiang, C. Shi, S. Shen,
"Service Level Constrained Inventory Systems",
Production and Operations Management, Vol. 28(9), 2365-2389, 2019.

26. H. Zhang, X. Chao, C. Shi,
"Perishable Inventory Systems: Convexity Results for Base-Stock Policies and Learning Algorithms under Censored Demand",
Operations Research, Vol. 66(5), 1276-1286, 2018.

27. X. Chao, X. Gong, C. Shi, C. Yang, H. Zhang, S. X. Zhou,
"Approximation Algorithms for Capacitated Perishable Inventory Systems with Positive Lead Time",
Management Science, Vol. 64(11), 5038-5061, 2018.

28. Y. Chen, R. Levi, C. Shi,
"Revenue Management of Reusable Resources with Advanced Reservations",
Production and Operations Management, Vol. 26(5), 836-859, 2017.

29. Y. Jiang, J. Xu*, S. Shen, C. Shi,
"Production Planning Problem with Joint Service-Level Guarantee: A Computational Study",
International Journal of Production Research, Vol. 55(1), 38-58, 2017.

30. Y. Xu, C. Shi, I. Duenyas,
"Priority Rules for Multi-Task Due-Date Scheduling under Varying Processing Costs",
Production and Operations Management, Vol. 25(12), 2086-2102, 2016.

31. H. Zhang, C. Shi, C. Qin*, C. Hua*,
"Stochastic Regret Minimization for Revenue Management Problems with Nonstationary Demands",
Naval Research Logistics, Vol. 63(6), 433-448, 2016.
32. V. Nagarajan, C. Shi,
"Approximation Algorithms for Inventory Problems with Submodular or Routing Costs",
Mathematical Programming Series A, Vol. 160(1), 225-244, 2016.
33. H. Zhang, C. Shi, X. Chao,
"Approximation Algorithms for Perishable Inventory Systems with Setup Costs",
Operations Research, Vol. 64(2), 432-440, 2016.
34. C. Shi, W. Chen, I. Duenyas,
"Nonparametric Data-Driven Algorithms for Multiproduct Inventory Systems with Censored Demand",
Operations Research, Vol. 64(2), 362-370, 2016.
35. M. Yu*, Y. Ding, R. Lindsey, C. Shi,
"A Data-Driven Approach to Manpower Planning at U.S.-Canada Border Crossings",
Transportation Research Part A: Policy and Practice, Vol. 91, 34-47, 2016.
36. X. Chao, X. Gong, C. Shi, H. Zhang,
"Approximation Algorithms for Perishable Inventory Systems",
Operations Research, Vol. 63(3), 585-601, 2015.
37. C. Shi, H. Zhang, C. Qin*,
"A Faster Algorithm for the Resource Allocation Problem with Convex Cost Functions",
Journal of Discrete Algorithms, Vol. 34, 137-146, 2015.
38. C. Shi, H. Zhang, X. Chao, R. Levi,
"Approximation Algorithms for Capacitated Stochastic Inventory Systems with Setup Cost",
Naval Research Logistics, Vol. 61(4), 304-319, 2014.
39. R. Levi, C. Shi,
"Approximation Algorithms for the Stochastic Lot-Sizing Problem with Order Lead Times",
Operations Research, Vol. 61(3), 593-602, 2013.
(First Place, INFORMS George E. Nicholson Student Paper Competition, 2009.)

Working Papers

40. J. Tang, I. Duenyas, C. Shi, N. Yang,
"Multiproduct Inventory Systems with Upgrading: Replenishment, Allocation, and Online Learning".
Manufacturing & Service Operations Management, Minor Revision.
41. Sichen Guo, Cong Shi, Chaolin Yang, Christos Zacharias,
"An Online Mirror Descent Learning Algorithm for Multiproduct Inventory Systems".
Operations Research, Major Revision.
42. Shukai Li, Cong Shi, Sanjay Mehrotra,
"LEGO: Optimal Online Learning under Sequential Price Competition".
Operations Research, Major Revision.
43. Ganggang Xu, Cong Shi,
"It is All About the Demand CDF: Data-Driven Periodic Review Inventory Control".
Management Science, Major Revision.
44. Z. Zheng, Q. Chen, E. X. Fang, C. Shi
"Online Learning for Inventory Control Problems under Random Yield".
Operations Research, Major Revision.
45. A. Dean, M. Zhalechian, C. Shi
"Learning Bundle Pricing of Reusable Resources".
Operations Research, Reject and Resubmit.
46. R. Miao, Z. Qi, C. Shi, L. Lin,
"Personalized Pricing with Invalid Instrumental Variables: Identification, Estimation, and Policy Learning".
Operations Research, Reject and Resubmit.
47. M. Li, X. Liu, Y. Huang, C. Shi, C. Hua,
"Integrating Empirical Estimation and Assortment Personalization for E-Commerce: A Consider-then-Choose Model".
(Finalist, INFORMS MSOM Data Driven Research Challenge, 2018.)

48. X. Chen, L. Ji, L. Jiang, S. Miao, C. Shi,
"More Bang for Your Buck: Effective KOL Marketing Campaign in Emerging Short-Video Markets".
49. Y. Chen, C. Shi,
"Near-Optimal Pricing Policy for Service Systems with Reusable Resources and Forward-Looking Customers".
50. H. Jia, C. Shi, S. Shen,
"Online Learning and Pricing for Network Revenue Management with Reusable Resources".
51. Daniele Bracale, Moulinath Banerjee, Cong Shi, Yuekai Sun
"Optimal Nonlinear Online Learning under Sequential Price Competition via s-Concavity".
52. J. Dong, W. Mo, Z. Qi, C. Shi, E. X. Fang, V. Tarokh
"PASTA: A Unified Framework for Offline Assortment Optimization".
53. J. Tang, C. Shi, I. Duenyas
"Online Learning for Joint Pricing and Remuneration in a Two-Sided Market".
54. X. Zheng, X. Sun, C. Shi
"Joint Learning and Pricing in Many-Server Queues: Near-Optimal Policies via Fluid Duality".
55. J. Tang, B. Chen, C. Shi, Y. Zhou
"Fairness-Constrained Inventory Control with Demand Learning".
56. S. Sun, C. Shi
"Optimal Regret Bounds for Online Learning and Pricing via Inverse Gradient Descent".
57. Y. Kuo, C. Shi, Y. Wei
"Managing Advance Reservations of Reusable Resources with Continuous Arrivals and Discrete Usage".

Books and Book Chapters

- X. Chen, S. Jasin, C. Shi, "The Elements of Joint Learning and Optimization in Operations Management", Springer, New York, NY. Available @ https://link.springer.com/book/9783031019258
- C. Shi, "Approximation Algorithms for Stochastic Inventory Systems", *Research Handbook on Inventory Management*, edited by J.-S. Song, Edward Elgar, Cheltenham, UK.
- C. Shi, "Approximation Algorithms for Stochastic Optimization Problems in Operations Management", *Wiley Encyclopedia of Operations Research and Management Sciences*, edited by J. J. Cochran, Wiley, Hoboken, NJ.
- S. Bhat, J. B. Lyons, C. Shi, X. J. Yang, "Value Alignment and Trust in Human-Robot Interaction: Insights from Simulation and User Study", *Discovering the Frontiers of Human-Robot Interaction*, edited by R. Vinjamuri, Springer, New York, NY.

Conference Proceedings

(Authors underlined are Ph.D. students; authors underlined and asterisked are undergraduate students*.)

1. S. Bhat, J. B. Lyons, C. Shi, X. J. Yang,
"Evaluating the Impact of Personalized Value Alignment in Human-Robot Interaction:
Insights into Trust and Team Performance Outcomes"
International Conference on Human-Robot Interaction (HRI 2024), Boulder, CO.
2. J. Dong, W. Mo, Z. Qi, C. Shi, E. X. Fang, V. Tarokh,
"PASTA: Pessimistic Assortment Optimization",
International Conference on Machine Learning (ICML 2023), Honolulu, HI.
3. Y. Guo, X. C. Shi, J. Yang,
"Reward Shaping for Building Trustworthy Robots in Sequential Human-Robot Interaction"
International Conference on Intelligent Robots and Systems (IROS 2023), Detroit, MI.
4. Y. Guo, X. J. Yang, C. Shi,
"Enabling Team of Teams: A Trust Inference and Propagation (TIP) Model in Multi-Human Multi-Robot Teams",
Robotics: Science and Systems (RSS 2023), Daegu, South Korea.
5. H. Jia, C. Shi, S. Shen,
"Online Learning and Pricing for Network Revenue Management with Reusable Resources",
Advances in Neural Information Processing Systems (NeurIPS 2022), New Orleans, LA.

6. H. Jia, C. Shi, S. Shen,
"Online Learning and Pricing with Reusable Resources: Linear Bandits with Sub-Exponential Rewards",
International Conference on Machine Learning (ICML 2022), Baltimore, MD.
7. S. Bhat, J. B. Lyons, C. Shi, X. J. Yang,
"Clustering Trust Dynamics in a Human-Robot Sequential Decision-Making Task",
International Conference on Intelligent Robots and Systems (IROS 2022), Kyoto, Japan.
8. Y. Guo, C. Shi, X. J. Yang,
"Reverse Psychology in Trust-Aware Human-Robot Interaction",
International Conference on Robotics and Automation (ICRA 2021), Xi'an, China.
9. Y. Chen, C. Shi,
"Joint Pricing and Inventory Management with Strategic Customers",
ACM Conference on Economics and Computation (EC 2017) MIT, Cambridge, MA.

Research Grants

1. **Amazon Research Award, PI** 5.2021 - 5.2024
Machine Learning for Personalized Assortment Optimization, $68K
2. **Boeing Research Award, Co-PI (with X. J. Yang)** 10.2022 – 10.2023
Predicting and Optimizing Trust Towards Autonomous Delivery Vehicles, $50K
3. **DOD-AFOSR, FA9550-23-1-0044, Co-PI (with X. J. Yang)** 5.2023 - 5.2026
Enabling Re-configurable Multi-Operator Multi-Agent (MOMA) Teams:
A Trust Inference and Propagation (TIP) Approach, $800K (my share: $400K)
4. **DOD-AFOSR, FA9500-20-1-0406, Co-PI (with X. J. Yang)** 9.2020 - 9.2023
Trust Building in Human-Autonomy Teaming:
A Reinforcement Learning Approach, $578K (my share: $289K)
5. **DOD-ARL, W911NF2020087, Co-PI (with X. J. Yang)** 5.2020 - 4.2021
Trust-Driven Human-Agent Teaming:
Modeling and Predicting Trust Dynamics, $100K (my share: $50K)
6. **National Science Foundation (NSF), CMMI-1634505, PI** 9.2016 - 8.2019
Nonparametric Sampling-Based Algorithms for Supply Chain Systems, $290K
7. **National Science Foundation (NSF), CMMI-1451078, PI** 9.2014 - 8.2016
Sustainability in Supply Chain: An Innovative and Systemic Approach, $273K
8. **National Science Foundation (NSF), CMMI-1362619, Co-PI (with X. Chao)** 6.2014 - 5.2017
Managing Perishable Inventory Systems:
New Algorithms and Approximations, $375K (my share: $160K)
9. **Seeding to Accelerate Research Themes (START), University of Michigan, Co-PI** 5.2022 - 5.2023
Trusted AI Decision-Makers for Complex and Rapid Response in Dynamic Situations,
with S. Shen (PI), X. Yang, R. Jiang, $60K
10. **Mcubed, University of Michigan, PI** 5.2020 - 5.2021
Optimal Learning in Dynamic Matching, with I. Duenyas and S. Shen, $60K
11. **Mcubed, University of Michigan, PI** 9.2016 - 9.2017
Integrating Review Information with Pricing, with R. Kapuscinski and R. Jiang, $60K
12. **Mcubed, University of Michigan, PI** 9.2013 - 9.2014
Distribution Free Inventory Control for Supply Chains, with I. Duenyas and Y. A. Bozer, $60K

Professional Activities

Editorial Services

- **Associate Editor**, *Operations Research*, 2024 – Present
- **Associate Editor**, *Management Science*, 2021 – Present
- **Associate Editor**, *Manufacturing & Service Operations Management*, 2024 – Present
- **Senior Editor**, *Production and Operations Management*, 2019 – Present

- **Associate Editor**, *Naval Research Logistics*, 2022 – Present
- **Associate Editor**, *IISE Transactions*, 2017 – Present
- **Associate Editor**, *Operations Research Letters*, 2015 – Present
- **Special Issue Editor** (with Professor George Shanthikumar), *Naval Research Logistics*, 2023 – Present
  Special Issue on "Online and Offline Learning in Operations Management"
- Journal Reviewer for *Operations Research, Management Science, Mathematics of Operations Research, Mathematical Programming, Manufacturing & Service Operations Management, Production and Operations Management, INFORMS Journal on Computing, Stochastic Systems, Naval Research Logistics, IISE Transactions, Operations Research Letters, Journal of Applied Probability, International Journal of Production Research, Computers & Operations Research, A Quarterly Journal of Operations Research, European Journal of Operations Research, Flexible Services and Manufacturing, International Transactions in Operational Research, Journal of the Operations Research Society of China, Decision Sciences, Journal of Machine Learning Research.*
- Conference Reviewer for *Conference on Neural Information Processing Systems (NeurIPS), International Conference on Machine Learning (ICML), ACM Conference on Economics and Computation (EC), ACM-SIAM Symposium on Discrete Algorithms (SODA), European Symposia on Algorithms (ESA), MSOM Conference, MSOM SIG (including 1RR initiative).*
- Book Reviewer for *Advances and Trends in Optimization with Engineering Applications by Society for Industrial and Applied Mathematics (SIAM).*

Extramural Services

- Cluster Chair for OM Data Analytics Track for POMS Annual Meeting, 2026 (with Professor George Shanthikumar)
- Cluster Chair for MSOM Supply Chain for INFORMS Annual Meeting, 2020 (with Professor Yehua Wei)
- Conference Session Chairs: INFORMS Annual (2012–2022), INFORMS International (2016), POMS (2015)
- Judge, INFORMS George Nicholson Prize Committee, 2023, 2024
- Judge, INFORMS Applied Probability Society (APS) Best Student Paper Prize Committee, 2024, 2025
- Judge, INFORMS Junior Faculty Forum (JFIG) Paper Competition, 2019, 2020
- Judge, INFORMS Service Science Best Student Paper Award Committee, 2025
- Judge, POMS Supply Chain College Student Paper Competition, 2016, 2017, 2018, 2019, 2020, 2021, 2022
- Judge, POMS College of Healthcare Operations Management Paper Competition, 2018, 2019, 2020, 2021, 2022, 2023, 2024
- Judge, CSAMSE Best Paper Competition, 2021, 2022, 2023, 2024, 2025
- Judge, MSOM Supply Chain Management Special Interest Group (SCM SIG), 2023, 2024, 2025
- Judge, IISE Supply Chain and Logistics (S&L) Best Paper Competition, 2023
- Judge, POMS-HK Best Student Paper Competition, 2023
- Judge, POMS-China Best Student Paper Competition, 2024, 2025
- External Reviewer, United States – Israel Binational Science Foundation (BSF), 2025
- External Reviewer, Research Grants Council (RGC) of Hong Kong, 2019, 2020, 2021, 2022, 2023
- National Science Foundation Panelist: December 2013 (CMMI), September 2016 (DRMS), March 2020 (CMMI)
- External Examiner, Ph.D. Thesis, The University of British Columbia, 2023
- Membership of INFORMS (Senior Member), MSOM, APS, Optimization Society.

Internal Services at University of Miami

- Co-Program Director (with Professor Daniel McGibney), Master of Science in Business Analytics (MSBA) Program
  Responsibilities include student recruitment, curriculum development, and student placement support, 2023-2024.

Internal Services at University of Michigan

- IOE Master of Engineering Program Task Force (Chair), 2021-2023
- IOE Murty Prize Committee, 2023
- Co-organizer (with Xiuli Chao and Stefanus Jasin),
  MIDAS/IOE Colloquium on Decision Making with Data Analytics on Dec 9, 2022.
- IOE Master of Engineering Program Task Force (Chair), 2022
- COE Representative for ECE Faculty Candidate, 2022
- IOE Master's Program Task Force (Chair), 2021
- Graduate Recruiting & Admissions Committee (GRA), 2021
- IOE Graduate Program Committee, 2021
- IOE First-Year Ph.D. Advisor, 2021
- IOE Faculty Mentor for IOE 316 (Daniel Felipe Otero-Leon, Luke DeRoos), 2021
- IOE Curriculum Committee, 2020
- IOE Graduate Program Committee, 2020
- IOE First-Year Ph.D. Advisor, 2020
- IOE Murty Prize Committee, 2020
- IOE Undergraduate Program Computing and Data Science Task Force, 2020
- COE Representative for CSE Faculty Candidate, 2020
- IOE Graduate Admissions and Financial Aid (GAFA) Committee, 2019–2020
- IOE Faculty Search Committee, 2019
- IOE Review Committee for Reza Kamaly (Lecturer), 2019
- IOE Curriculum Committee, 2019
- IOE Graduate Program Committee, 2019
- IOE First-Year Ph.D. Advisor, 2019
- IOE Wilson Prize Committee, 2019
- IOE Undergraduate Program Computing and Data Science Task Force, 2019
- IOE Review Committee for Luis Guzman (Lecturer), 2018
- IOE Departmental Committee, 2018-2019
- IOE Murty Prize Committee and IOE Wilson Prize Committee, 2018
- IOE Internal Review Committee (formed by the College of Engineering), 2018
- IOE Graduate Admissions and Financial Aid (GAFA) Committee, 2017–2018
- IOE Murty Prize Committee, 2017
- IOE Review Committee for Dan Reaume (Lecturer), 2017
- IOE Graduate Admissions and Financial Aid (GAFA) Committee, 2016–2017
- IOE Ph.D. Preliminary Exam Coordinator (Operations Research), 2016
- IOE Graduate Admissions and Financial Aid (GAFA) Committee, 2015–2016
- IOE Ph.D. Preliminary Exam Coordinator (Operations Research), 2015
- IOE Ph.D. Qualifying Exam Coordinator (Stochastic Models), 2015
- IOE Graduate Admissions and Financial Aid (GAFA) Committee, 2014–2015
- IOE Departmental Committee, 2014-2015
- IOE Graduate Admissions and Financial Aid (GAFA) Committee, 2013–2014
- IOE Graduate Admissions and Financial Aid (GAFA) Committee, 2012–2013
- IOE Seminar Series Coordinator (11 External Speakers), Fall 2013
- Ph.D. Prelim Committee Member for IOE Ph.D. students (Jeffrey Choy, Arlen Dean, Kati Moug, Xinyu Fei, Jingwen Tang, Yaohui Guo, Haoming Shen, Rohan Ghuge, Xian Yu, Luke DeRoos, Huiwen Jia, Mohammad Zhalechian, Hideaki Nakao, Elnaz Kabir, Esmaeil Keyvanshokooh, Alejandro Vigo, Fatemeh Navidi, Qi Luo, Sentao Miao, Francisco Aldarondo, Nima Salehi, Armando Bernal, Yuchen Jiang, Huanan Zhang, Weidong Chen, Hao Yuan, Amirhossein Meisami, Abdullah Al-Shelahi, Zhihao Chen, Yuanyuan Guo, Elliot Lee, Xiang Liu, Jingxing Wang, Emily Speakman, Patrick Nestor)

Invited Seminars at Peer Institutions

1. University of Michigan, IOE Seminar Series, Fall 2024.
2. Purdue University, Quantitative Methods, Seminar Series, Fall 2023.
3. University of Miami, MHBS Faculty Colloquium, Fall 2023.
4. University of Chicago, Institute for Mathematical and Statistical Innovation, Spring 2023.
5. University of North Carolina at Chapel Hill, OM Seminar Series, Spring 2023.
6. Hong Kong University of Science and Technology, ISOM Seminar Series, Fall 2022.
7. Northwestern University, IEMS Seminar Series, Fall 2022.
8. University of Miami, Management Science Seminar Series, Fall 2022.
9. University of Colorado Boulder, OM Seminar Series, Fall 2022.
10. University of Rochester, Simon School of Business Seminar Series, Fall 2022.
11. University of Toronto, Rotman School of Management Seminar Series, Fall 2021.
12. Arizona State University, IE Seminar Series, Fall 2021.
13. Massachusetts Institute of Technology, Data Science Lab (DSL) Seminar Series, Summer 2021.
14. University of Chicago, Booth School of Business Seminar Series, Fall 2020.
15. University of Michigan, IOE Seminar Series, Spring 2020.
16. Zhejiang University, International Symposium on Revenue Management, Summer 2019.
17. Chinese University of Hong Kong, Shenzhen, MOSTLY OM Workshop, Summer 2019.
18. Institute for Mathematics and its Applications, University of Minnesota, Fall 2018.
19. Tsinghua University, MOSTLY OM Workshop, Summer 2018.
20. Cornell University, ORIE Seminar Series, Fall 2017.
21. Northwestern University, IEMS Seminar Series, Spring 2017.
22. University of Illinois at Urbana-Champaign (UIUC), ISE Seminar Series, Spring 2017.
23. Columbia University, IEOR-DRO Seminar Series, Spring 2017.
24. Georgia Institute of Technology, ISyE Seminar Series, Spring 2016.
25. Columbia University, IEOR Seminar Series, Spring 2012.
26. University of Michigan, IOE Seminar Series, Spring 2012.
27. University of British Columbia, Sauder School of Business Seminar Series, Spring 2012.
28. Rugters University, Rugters Business School Seminar Series, Spring 2012.
29. University of Rochester, Simon School of Business Seminar Series, Spring 2012.
30. National University of Singapore, Decision Sciences Seminar Series, Spring 2012.
31. Singapore Management University, LKC Business School Seminar Series, Spring 2012.
32. Chinese University of Hong Kong, Business School Seminar Series, Spring 2012.
33. Massachusetts Institute of Technology, Operations Management Seminar Series, Spring 2008.

Invited Conferences

Omitted due to a long list of conference talks (more than 100).

Ph.D. Dissertation Chair

1. **Dr. Huanan Zhang** (co-advised with Professor X. Chao), UM-IOE, 2012 – 2017
   Dissertation: Data-Driven Algorithms for Stochastic Supply Chain Systems
   Defense Date: April 20, 2017
   First Position: Assistant Professor, Industrial and Manufacturing Engineering, Penn State University
   Current Position: Assistant Professor, Leeds School of Business, University of Colorado Boulder
2. **Dr. Yuchen Jiang** (co-advised with Professor S. Shen), UM-IOE, 2013 – 2018
   Dissertation: Supply Chain and Revenue Management for Online Retailing
   Defense Date: February 16, 2018
   First Position: Data Scientist, Uber
   Current Position: Machine Learning Engineer, Meta
3. **Dr. Weidong Chen** (co-advised with Professor I. Duenyas), UM-IOE, 2014 – 2019
   Dissertation: Online Learning Algorithms for Stochastic Inventory and Queueing Systems
   Defense Date: March 14, 2019
   First Position: Data Scientist, Gap
   Current Position: Sr. Research Scientist, Amazon
4. **Dr. Hao Yuan**, UM-IOE, 2015 – 2019
   Dissertation: Data Driven Optimization: Theory and Applications in Supply Chain Systems
   Defense Date: March 28, 2019
   First Position: Applied Scientist, Amazon
   Current Position: Machine Learning Engineer, Meta
5. **Dr. Armando Bernal**, UM-IOE, 2016 – 2020
   Dissertation: Pricing in Network Revenue Management Systems with Reusable Resources
   Defense Date: March 19, 2020
   First Position: Data Scientist, Amobee
   Current Position: Data Scientist, PepsiCo
6. **Dr. Esmaeil Keyvanshokooh** (co-advised with Professor M. P. Van Oyen), UM-IOE, 2015 – 2020
   Dissertation: Personalized Data-Driven Learning and Optimization
   Defense Date: December 16, 2020
   First Position: Assistant Professor, Mays Business School, Texas A&M University
7. **Dr. Huiwen Jia** (co-advised with Professor S. Shen), UM-IOE, 2018 – 2022
   Dissertation: Adaptive Optimization and Learning for Service Systems
   Defense Date: March 9, 2022
   First Position: Applied Scientist, Amazon, Seattle, WA
   Current Position: Assistant Professor, Industrial Engineering & Operations Research, University of California at Berkeley
8. **Dr. Jingwen Tang**, UM-IOE, 2019 – 2024
   Dissertation: Online and Offline Learning Algorithms in Operations Management
   Defense Date: March 14, 2024
   First Position: Assistant Professor, Miami Herbert Business School, University of Miami
9. **Dr. Yaohui Guo** (co-advised with Professor X. Yang), UM-IOE, 2019 – 2024
   Dissertation: Trust-Aware Multi-Agent Human-Robot Teaming
   Defense Date: July 1, 2024
   First Position: Software Engineer, Google
10. **Shreyas Bhat** (co-advised with Professor X. Yang), UM-IOE, 2021 –

Ph.D. Dissertation Committee

1. **Daniele Bracale**, STAT, University of Michigan, 2019 –

2. **Dr. Shukai Li**, IEMS, Northwestern University, 2019 – 2025
   Dissertation: Analysis of Markov Models with Applications in Queuing, Healthcare, and Revenue Management
   Defense Date: June 24, 2024
   First Position: Assistant Professor, Stern School of Business, New York University (Shanghai Campus)

3. **Dr. Arlen Dean**, IOE, University of Michigan, 2019 – 2024
   Dissertation: Learning, Matching, and Allocation Algorithms for Healthcare and Revenue Management Problems with Reusable Resources
   Defense Date: May 14, 2024
   First Position: Postdoc, Oxford University (then Assistant Professor, Johns Hopkins Carey Business School)
4. **Dr. Moyan Li**, IOE, University of Michigan, 2019 – 2023
   Dissertation: Statistical Inference on Large-Scale and Complex Data via Gaussian Process
   Defense Date: May 10, 2023
   First Position: Applied Scientist, Amazon
5. **Dr. Haoming Shen**, IOE, University of Michigan, 2016 – 2023
   Dissertation: Theory and Algorithms of Robust Chance Constraints
   Defense Date: May 8, 2023
   First Position: Assistant Professor, Industrial Engineering, University of Arkansas
6. **Dr. Rohan Ghuge**, IOE, University of Michigan, 2018 – 2023
   Dissertation: The Power of Adaptivity for Decision-Making under Uncertainty
   Defense Date: March 20, 2023
   First Position: Postdoc, ISyE, Georgia Institute of Technology
7. **Dr. Kati Moug**, IOE, University of Michigan, 2019 – 2023
   Dissertation: Sequential Decision Making in Crisis: Mitigating Risk in Marginalized Communities with Stochastic Optimization
   Defense Date: February 21, 2023
   First Position: Clinical Assistant Professor, ISyE, Georgia Institute of Technology
8. **Dr. Luke DeRoos**, IOE, University of Michigan, 2016 – 2023
   Dissertation: Managing Chronic Health Conditions with Limited Resources
   Defense Date: February 13, 2023
   First Position: Applied Scientist, Optilogic
9. **Dr. Mohammad Zhalechian**, IOE, University of Michigan, 2016 – 2023
   Dissertation: Data-Driven Learning and Resource Allocation in Healthcare Operations Management
   Defense Date: July 7, 2022
   First Position: Assistant Professor, Kelley School of Business, Indiana University
10. **Dr. Mengzhenyu Zhang**, Technology & Operations, University of Michigan, 2015 –
    Dissertation: Revenue Management in the New Age: Analysis and Learning with Dependency and Non-Stationarity
    Defense Date: June 4, 2021
    First Position: Assistant Professor, UCL School of Management, University College London
11. **Dr. Pornpawee Bumpensanti**, ISYE, Georgia Institute of Technology, 2016 – 2021
    Dissertation: Pricing and Revenue Management in Supply Chain Networks and Service Systems
    Defense Date: April 29, 2021
    First Position: Applied Scientist, Amazon
12. **Dr. Feng Tian**, Technology & Operations, University of Michigan, 2015 – 2021
    Dissertation: Continuous-time Optimal Dynamic Contracts
    Defense Date: Jul 16, 2021
    First Position: Assistant Professor, HKU Business School, University of Hong Kong
13. **Dr. Hideaki Nakao**, IOE, University of Michigan, 2016 – 2021
    Dissertation: Distributionally Robust Optimization in Sequential Decision Making
    Defense Date: March 8, 2021
    First Position: Researcher, Argonne National Laboratory
14. **Dr. Manqi (Maggie) Li**, Technology & Operations, University of Michigan, 2014 – 2021
    Dissertation: Data-Driven Operations Management
    Defense Date: March 4, 2021
    First Position: Assistant Professor of Business, Renmin University
15. **Dr. Seok Joo Kwak**, IOE, University of Michigan, 2015 – 2020
    Dissertation: Examining Interventions and Cognitive Load Factors in Online Learning Experiences
    Defense Date: June 16, 2020
    First Position: Researcher, AI/OR Lab, Korean Army
16. **Dr. Zhaohui (Zoey) Jiang**, Technology & Operations, University of Michigan, 2014 – 2020
    Dissertation: Towards a Better Design of Online Marketplaces
    Defense Date: April 30, 2020
    First Position: Assistant Professor, Tepper School of Business, Carnegie Mellon University

17. **Dr. Fatemah Navidi**, IOE, University of Michigan, 2015 – 2020
    Dissertation: Adaptive Approximation Algorithms for Ranking, Routing and Classification
    Defense Date: March 24, 2020
    First Position: Postdoc, Booth Business School, University of Chicago
18. **Dr. Qi Luo**, IOE, University of Michigan, 2015 – 2020
    Dissertation: Dynamic Pricing, Incentives and Learning in Sharing Mobility: A Continuous Approach
    Defense Date: March 23, 2020
    First Position: Assistant Professor, Industrial Engineering, Clemson University
19. **Dr. Sentao Miao**, IOE, University of Michigan, 2015 – 2020
    Dissertation: Data-Driven Optimization in Revenue Management: Pricing, Assortment Planning, and Demand Learning
    Defense Date: March 18, 2020
    First Position: Assistant Professor, Desautels Faculty of Management, McGill University
20. **Dr. Frank Cheng**, Computer Science and Engineering, University of Michigan, 2015 – 2020
    Dissertation: Agent-Based Models for Analyzing Strategic Adaptations to Government Regulation
    Defense Date: January 22, 2020
    First Position: Researcher, Microsoft Research
21. **Dr. Aravind Govindarajan**, Technology & Operations, University of Michigan, 2014 – 2019
    Dissertation: Essays on Omnichannel and E-commerce Retail Operations
    Defense Date: September 4, 2019
    First Position: Data Scientist, Target
22. **Dr. Francisco Aldarondo**, IOE, University of Michigan, 2014 – 2019
    Dissertation: Design and Operational Analysis of
    Automated Guided Vehicle-Based Goods-to-Person Order Picking and Sortation Systems
    Defense Date: August 27, 2019
    First Position: Researcher, Applied Physics Laboratory, Johns Hopkins University
23. **Dr. Yuanyuan Guo**, IOE, University of Michigan, 2014 – 2019
    Dissertation: Data-Driven Distributionally Robust Optimization on Power System Operations
    Defense Date: July 19, 2019
    First Position: Data Scientist, ExxonMobil
24. **Dr. Qiyun Pan**, IOE, University of Michigan, 2015 – 2019
    Dissertation: Computationally Efficient Methods and Uncertainty Quantification for
    Extreme Quantile Estimation with Stochastic Simulation Models
    Defense Date: May 2, 2019
    First Position: Sr. Data Scientist, Nielsen
25. **Dr. Ece Sanci**, IOE, University of Michigan, 2015 – 2019
    Dissertation: Strategies for Disaster Preparedness and Disruption Risk Mitigation
    Defense Date: April 30, 2019
    First Position: Assistant Professor, School of Management, University of Bath
26. **Dr. Abdullah Alshelahi**, IOE, University of Michigan, 2014 – 2019
    Dissertation: Macroscopic Look at Equity Markets
    Defense Date: February 20, 2019
    First Position: Research Scientist, General Motors
27. **Dr. Xiang Liu**, IOE, University of Michigan, 2014 – 2018
    Dissertation: Operations Research Models for Reducing Hospital Readmissions
    Defense Date: December 18, 2018
    First Position: Assistant Professor, Department of Industrial Engineering, Tsinghua University
28. **Dr. Nima Salehi Sadghiani**, IOE, University of Michigan, 2014 – 2018
    Dissertation: Models for Flexible Supply Chain Network Design
    Defense Date: April 23, 2018
    First Position: Data Scientist, Gap
29. **Dr. Amirhossein Meisami**, IOE, University of Michigan, 2014 – 2018
    Dissertation: Integrated Learning and Optimization Frameworks with Applications in Operations Management
    Defense Date: April 5, 2018
    First Position: Data Scientist, Adobe Research

30. **Dr. Qi (George) Chen**, Technology & Operations, University of Michigan, 2010 – 2017
    Dissertation: Dynamic Pricing under Operational Frictions
    Defense Date: April 11, 2017
    First Position: Assistant Professor, Naveen Jindal School of Management, University of Texas at Dallas
31. **Dr. Do Yong (Elliot) Lee**, IOE, University of Michigan, 2011 – 2016
    Dissertation: Management of a Chronically Ill Population: An Operations Approach to Liver Cancer Screening
    Defense Date: May 4, 2016
    First Position: Research Analyst, Center for Naval Analyses (CNA) Corporation
32. **Dr. Zhihao Chen**, IOE, University of Michigan, 2011 – 2016
    Dissertation: Strategic Network Planning under Uncertainty with Two-Stage Stochastic Integer Programming
    Defense Date: February 12, 2016
    First Position: Research Scientist, Amazon
33. **Dr. Boxiao (Beryl) Chen**, IOE, University of Michigan, 2010 – 2016
    Dissertation: Learning Algorithms for Stochastic Dynamic Inventory Systems
    Defense Date: March 23, 2016
    First Position: Assistant Professor, College of Business Administration, University of Illinois at Chicago
34. **Dr. Yao Cui**, Technology & Operations, University of Michigan, 2009 – 2015
    Dissertation: Strategic Pricing in Service Industries
    Defense Date: April 9, 2015
    First Position: Assistant Professor, Johnson Graduate School of Business, Cornell University

Masters Students Supervised

1. **Jing Yang**, IOE, University of Michigan, 2018 – 2019
   Project Title: Inventory Routing Problems
   First Position: Ph.D. Student at School of Industrial Engineering, Purdue University.
2. **Charles Su**, Ross MBA, University of Michigan, 2018 – 2019
   Project Title: Applying a Facility Location Model to Amazon's US Fulfillment Center Network
   First Position: Data Scientist, Amazon
3. **Baiyang (Sarah) Liu**, IOE, University of Michigan, 2012 – 2013
   Project Title: Revenue Management of Reusable Resources with Advanced Reservations
   First Position: Research Scientist, General Motors
4. **Xing (Shane) Li**, IOE, University of Michigan, 2012 – 2013
   Project Title: Cyclical Production Scheduling
   First Position: Sr. Operations Research Consultant, Sabre Corporation

Undergraduate Students Supervised

1. **Chao Qin**, IOE, University of Michigan, 2012 – 2015
   Project Title: A Faster Algorithm for the Resource Allocation Problem with Convex Cost Functions
   First Position: Ph.D. Student at IEMS, Northwestern University
   Current Position: Ph.D. Student at DRO, Columbia Business School, Columbia University
   Joint papers have been Finalists, INFORMS Undergraduate Research Prize, 2014, 2015
2. **Cheng Hua**, IOE, University of Michigan, 2012 – 2015
   Project Title: Stochastic Regret Minimization for Revenue Management Problems with Nonstationary Demands
   First Position: Ph.D. Student at Yale School of Management, Yale University
   Current Position: Assistant Professor, Antai School of Business, Shanghai Jiaotong University
   Joint paper has been Finalist, INFORMS Undergraduate Research Prize, 2014
3. **Yiren Zhou**, IOE, University of Michigan, 2015 – 2017
   Project Title: Priority Rules for Multi-Task Due-Date Scheduling under Varying Processing Costs
   First Position: Masters Student at ORIE, Cornell University
   Current Position: High Frequency Trading, DRW

Courses at the University of Michigan – Ann Arbor

1. IOE 202 Operations Engineering & Analytics (Undergraduate Core Class)
2. IOE 265 Probability and Statistics for Engineers (Undergraduate Core Class)
3. IOE 516 Stochastic Processes II (Ph.D. Core Class)
4. IOE 541 (IOE 591) Optimization Methods in Supply Chain (Ph.D./Masters Class)

Teaching Evaluations (based on a 5.0 scale)

Q1: Overall, this was an excellent course;
Q2: Overall, the instructor was an excellent teacher;
Q4: The student had a strong desire to take this course (*independent of any instructors*).

Semester	*Course*	*Level*	*Title*	*Enroll/Resp.*	**Q1**	**Q2**	*Q4*
Winter 23	IOE 516	PHD/G	Stochastic Proc II	31/31	**4.80**	**4.90**	*4.60*
Winter 23	IOE 202	UG	Ops Eng & Analytics	67/66	**4.60**	**4.80**	*4.40*
Fall 22	IOE 541	PHD/G	Supply Chain Mgt	47/44	**4.81**	**4.83**	*4.73*
Winter 22	IOE 516	PHD/G	Stochastic Proc II	33/29	**4.76**	**4.81**	*4.83*
Winter 22	IOE 202	UG	Ops Eng & Analytics	73/64	**4.58**	**4.67**	*4.30*
Fall 21	IOE 541	PHD/G	Supply Chain Mgt	40/38	**4.81**	**4.81**	*4.74*
Winter 21	IOE 516	PHD/G	Stochastic Proc II	19/18	**4.81**	**4.90**	*4.60*
Winter 21	IOE 202	UG	Ops Eng & Analytics	66/55	**4.08**	**4.21**	*3.76*
Winter 20	IOE 516	PHD/G	Stochastic Proc II	34/23	**4.54**	**4.68**	*4.25*
Fall 19	IOE 541	PHD/G	Supply Chain Mgt	38/34	**4.61**	**4.68**	*4.69*
Fall 19	IOE 265	UG	Prob&Stat Engr	137/128	**4.11**	**4.38**	*3.76*
Winter 19	IOE 516	PHD/G	Stochastic Proc II	27/26	**4.88**	**4.93**	*4.78*
Fall 18	IOE 541	PHD/G	Supply Chain Mgt	40/38	**4.73**	**4.79**	*4.53*
Fall 18	IOE 265	UG	Prob&Stat Engr	131/118	**4.28**	**4.54**	*3.70*
Winter 18	IOE 516	PHD/G	Stochastic Proc II	23/23	**4.78**	**4.86**	*4.68*
Fall 17	IOE 591	PHD/G	Supply Chain Mgt	38/35	**4.85**	**4.85**	*4.36*
Fall 17	IOE 265	UG	Prob&Stat Engr	140/121	**4.53**	**4.67**	*4.03*
Winter 17	IOE 516	PHD/G	Stochastic Proc II	23/21	**4.88**	**4.92**	*4.55*
Fall 16	IOE 591	PHD/G	Supply Chain Mgt	31/20	**4.68**	**4.82**	*4.85*
Fall 16	IOE 265	UG	Prob&Stat Engr	108/93	**4.69**	**4.69**	*3.96*
Winter 16	IOE 516	PHD/G	Stochastic Proc II	21/19	**4.77**	**4.82**	*4.77*
Fall 15	IOE 265	UG	Prob&Stat Engr	141/114	**4.15**	**4.34**	*3.87*
Winter 15	IOE 516	PHD/G	Stochastic Proc II	18/17	**4.85**	**4.89**	*4.25*
Fall 14	IOE 265	UG	Prob&Stat Engr	121/89	**4.03**	**4.28**	*3.81*
Winter 14	IOE 516	PHD/G	Stochastic Proc II	17/16	**4.70**	**4.77**	*4.25*
Fall 13	IOE 265	UG	Prob&Stat Engr	133/69	**4.12**	**4.31**	*3.62*
Winter 13	IOE 516	PHD/G	Stochastic Proc II	17/14	**4.86**	**4.96**	*4.63*

Teaching Activities

Courses at the Miami Herbert Business School

1. MAS 311 Applied Probability of Statistics (Undergraduate Core Class)
2. MAS 631 Statistics for Managerial Decision Making (Masters Class)
3. MAS 691 Applied Reinforcement Learning (Ph.D. Class)

Teaching Evaluations (based on a 5.0 scale)

Score: My overall evaluation of the instructor is positive.

Semester	*Course*	*Level*	*Title*	*Enroll/Resp.*	**Score**
Fall 24	MAS 631 S	G	Statistics for Managerial Decision Making	27/13	**4.90**
Fall 24	MAS 311 S	UG	Applied Probability and Statistics	37/20	**4.80**
Fall 24	MAS 311 R	UG	Applied Probability and Statistics	38/21	**4.40**
Spring 24	MAS 311 R	UG	Applied Probability and Statistics	45/20	**4.90**
Spring 24	MAS 311 P	UG	Applied Probability and Statistics	49/38	**4.90**
Fall 23	MAS 691	PHD	Applied Reinforcement Learning	7/6	**5.00**