

Guang CHENG

Institute of Operations Research and Analytics
National University of Singapore
gcheng@u.nus.edu | <https://gcheng-nus.github.io>
Last Updated in February 2025

EDUCATION

National University of Singapore, Singapore *2020 – Present*
Ph.D. Candidate in Operations Research and Analytics
Advisors: Joel Goh, Sıdıka Tunç Candoğan

University of Science and Technology of China, China *2016 – 2019*
M.S. in Management Science and Engineering

Jiangnan University, China *2012 – 2016*
B.S. in Industrial Engineering

RESEARCH INTERESTS

Topics: Data-Driven Medical Decision-Making and Healthcare Operations; Behavioral Interventions in Healthcare

Methodologies: Econometric Analysis; Field Experiments; Data Analytics; Causal Inference

PUBLISHED WORK

1. Guang Cheng, Jingui Xie, Zhichao Zheng, Haidong Luo, Oon-Cheong Ooi. Extubation Decisions with Predictive Information for Mechanically Ventilated Patients in the ICU. *Management Science*. Article in Advance.
2. Stephanie Q. Ko, Guang Cheng, Tze Yeong Teng, Joel Goh. Home-First or Hospital-First? A Propensity Score-Weighted Retrospective Cohort Study. *Journal of the American Medical Directors Association*, 2024, 25(9):105154.
3. Guang Cheng, Sarah Y. Gao, Yancheng Yuan, Chenxiao Zhang, Zhichao Zheng. On the Test Accuracy and Effective Control of the COVID-19 Pandemic: A Case Study in Singapore. *INFORMS Journal on Applied Analytics*, 2022, 52(6):524-538.
4. Jingui Xie, Guang Cheng, Zhichao Zheng, Haidong Luo, Oon-Cheong Ooi. To Extubate or Not to Extubate: Risk Factors for Extubation Failure and Deterioration with Further Mechanical Ventilation. *Journal of Cardiac Surgery*, 2019, 34(10): 1004–1011.

WORKING PAPERS

5. Guang Cheng, Sıdıka Tunç Candoğan, Joel Goh, Bilal Gokpinar. The Role of Contextual Information in Customer Reviews: A Field Experiment on a Mental Health Platform. **Major Revision** at *Management Science*.
 - Finalist, 2025 POMS PITM Best Student Paper Competition
 - Select for presentation at Workshop on Empirical Operations Management 2025

6. Guang Cheng, Joshua M. Hagood, Ryan L. Melvin, Adam F. Kohutnicki, Mitchell H. Tsai, Joel Goh. The Impact of Introducing Release Times for Operating Rooms on Surgery Waiting Times.

WORK-IN-PROGRESS

7. Incentive Design for Hospital at Home (with Joel Goh, Eryn J. He, Sergei Savin)
8. Appointment Management in Outpatient Clinics (with Joel Goh and Hong Ming Tan)
9. Retain Clients on Mental Health Platform (with Sıdıka Tunç Candoğan and Yueyang Zhong)

TEACHING EXPERIENCE

Instructor

- DAO1704 Decision Analytics using Spreadsheets (BBA) Spring 2023
 - Teaching evaluation: 4.2/5 (department average: 4.0)
 - Teaching Excellence Award for Graduate Instructor

Guest Lecturer

- DBA4811 Analytics for Consulting (BBA) Spring 2025
 - Conducted two lectures on machine learning techniques and their applications in operations and analytics.
- PHM5014 Causal Inference in Precision Medicine (MScPHM) Fall 2024
 - Presented the Safe Space experiment to illustrate real-world applications of causal inference, demonstrating how empirical methods inform policy and operational decisions in real business.

Teaching Assistant

- DBA4811 Analytics for Consulting (BBA) Spring 2025
- DBA5103 Operations Research and Analytics (MSBA) Fall 2022
- IE4214 Revenue Management and Pricing Analytics (BEng) Spring 2022

CONFERENCE PRESENTATIONS

The Role of Contextual Information in Customer Reviews: A Field Experiment on a Mental Health Platform

- POMS Annual Conference, Atlanta, Georgia, USA (scheduled) May 2025
- Workshop on Empirical Operations Management, Hong Kong, China Jan 2025
- The 15th POMS-HK International Conference, Hong Kong, China Jan 2025
- INFORMS Annual Meeting, Seattle, Washington, USA Oct 2024
- The 16th International Annual Conference of CSAMSE, Xiamen, China Jul 2024

The Impact of Introducing Release Policy for Operating Rooms on Surgery Waiting Times

- INFORMS Annual Meeting, Phoenix, Arizona, USA Oct 2023
- POMS Annual Conference, Orlando, Florida, USA May 2023
- The 13th POMS-HK International Conference, Hong Kong, China Jan 2023
- INFORMS Annual Meeting, Indianapolis, Indiana, USA Oct 2022
- POMS Annual Conference, Orlando, Florida, USA (Online) Apr 2022

Extubation Decisions with Predictive Information for Mechanically Ventilated Patients in ICU

- POMS Annual Conference, Orlando, Florida, USA (Online) Apr 2022
- The 13th International Annual Conference of CSAMSE, Shanghai, China (Online) Jul 2021
- The 10th POMS-HK International Conference, Hong Kong, China Jan 2019

PROFESSIONAL EXPERIENCE

- Visiting Scholar, Virginia Tech, Blacksburg, Virginia, USA, Aug 2023 – Dec 2023
- Research Assistant, Singapore Management University, Singapore, Jul 2019 – Jun 2020

SERVICES AND ACTIVITIES

Conference Session Chair

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| • INFORMS Annual Meeting | Oct 2025 |
| • INFORMS International Meeting | Jul 2025 |
| • POMS-HK International Conference | Jan 2025 |
| • POMS Annual Conference | May 2023 |
| • Analytics for X Conference | Sept 2022 |
| • POMS Annual Conference | Apr 2022 |

Organizing Committee

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| • Analytics for X Conference | Sept 2021 |
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HONORS AND AWARDS

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| • Finalist, POMS PITM Best Student Paper Competition | 2025 |
| • Teaching Excellence Award for Graduate Instructor | 2023 |
| • NUS Research Scholarship, National University of Singapore | 2020–2024 |
| • JData Data Mining Competition Top 10, JD.com, inc. | 2017 |
| • National Scholarship, Ministry of Education of People's Republic of China | 2015 |

SKILLS

Programming & Packages: Python, R, MATLAB, SQL, Gurobi

Languages: English (Fluent), Mandarin (Native)