

# Guang CHENG

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

*Last Updated on November 2024*

## 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:** Medical Decision-Making; Healthcare Operations; Healthcare Delivery

**Methodologies:** Econometric Analysis; Field experiment; Data Analytics

## PUBLISHED WORK

---

1. Guang Cheng, Jingui Xie, Zhichao Zheng, Haidong Luo, Oon-Cheong Ooi. Extubation Decisions with Predictive Information for Mechanically Ventilated Patients in ICU. *Management Science*.
2. Stephanie 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 Yini 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.
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.

## 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
- POMS-HK International Conference, Hong Kong, China (scheduled) 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
- 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
- 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

## PROFESSIONAL ACTIVITIES AND SERVICES

---

### **Conference Session Chair**

- POMS-HK International Conference Jan 2025
- POMS Annual Conference May 2023
- Analytics for X Conference Sept 2022
- POMS Annual Conference Apr 2022

### **Organizing Committee**

- Analytics for X Conference Sept 2021

### **Professional Memberships**

- Institute for Operations Research and Management Sciences (INFORMS)
- INFORMS Health Applications Society (HAS)

## TEACHING EXPERIENCE

---

### **Instructor**

- DAO1704 Decision Analytics using Spreadsheets (Undergraduate Core) Spring 2023

### **Guest Lecturer**

- PHM5014 Causal Inference in Precision Medicine (Masters) Fall 2024

### **Teaching Assistant**

- IE4214 Revenue Management and Pricing Analytics (Undergraduate Core) Spring 2022
- DBA5103 Operations Research and Analytics (Masters Core) Fall 2022

## HONORS AND AWARDS

---

- NUS Research Scholarship, National University of Singapore, Singapore 2020–2024
- JData Data Mining Competition Top 10, JD.com, inc., China 2017
- National Scholarship, Ministry of Education of People's Republic of China, China 2015

## SKILLS

---

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

**Languages:** English (Fluent), Mandarin (Native)