

# GUANG CHENG

National University of Singapore, Institute of Operations Research and Analytics  
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## EDUCATION

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**National University of Singapore, Singapore** 2020 – Present

*Ph.D. Candidate in Operations Research and Analytics*

Thesis 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

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**Topics:** Medical decision-making; Healthcare operations; Healthcare design and delivery

**Methods:** Applied econometrics; Causal inference; Field experiment; Data analytics

## PUBLISHED WORK

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

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1. 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.

## WORK-IN-PROGRESS

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1. 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

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- *The Role of Contextual Information in Customer Reviews: A Field Experiment on a Mental Health Platform*
  - INFORMS Annual Meeting, Seattle, Washington, USA (scheduled) Oct 2024
  - The 16th International 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, virtual Apr 2022
  - IARS Annual Meeting, poster presentation, virtual Mar 2022
- *Extubation Decisions with Predictive Information for Mechanically Ventilated Patients in ICU*
  - POMS Annual Conference, virtual Apr 2022
  - The 13th International Conference of CSAMSE, virtual Jul 2021
  - POMS-HK International Conference, Hong Kong, China Jan 2019

## PROFESSIONAL EXPERIENCE

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- Visiting Scholar, Virginia Tech, Blacksburg, Virginia, USA, Aug 2023 – Dec 2023
- Research Assistant, Singapore Management University, Singapore, Jul 2019 – Jun 2020
- Research Assistant, Singapore Management University, Singapore, Aug 2018 – Nov 2018
- Research Assistant, Singapore Management University, Singapore, Sept 2017 – Mar 2018

## PROFESSIONAL ACTIVITIES AND SERVICES

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### Conference Session Chair

- POMS-HK 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

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### Instructor

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

## Teaching Assistant

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

## HONORS AND AWARDS

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- 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

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