

# GUANG CHENG

National University of Singapore, Institute of Operations Research and Analytics  
#04-01, Innovation 4.0, 3 Research Link, Singapore 117602  
gcheng@u.nus.edu ◊ <https://gcheng-nus.github.io>

## EDUCATION

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

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

Thesis Advisors: Joel Goh, Sidika Tunc Candogan

**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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Data-driven medical decision making; Empirical operations; Healthcare operations; Healthcare design and delivery

## WORKING PAPER

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1. Guang Cheng, Jingui Xie, Zhichao Zheng, Haidong Luo, Oon-Cheong Ooi. Extubation decisions with predictive information for mechanically ventilated patients in ICU. Accepted for publication in *Management Science*.

## PUBLISHED PAPERS

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1. 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.
2. 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.

## CONFERENCE PRESENTATIONS

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- *Extubation decision making 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
- *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

## 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 Annual Conference May 2023
- INFORMS Annual Meeting Sept 2022
- 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)
- Production and Operations Management Society (POMS)

## 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

## SKILLS

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