

# 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

---

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

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

Thesis Advisor: Joel Goh

**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

---

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

## WORKING PAPER

---

1. Guang Cheng, Jingui Xie, Zhichao Zheng, Haidong Luo, Oon-Cheong Ooi. Extubation decision making with predictive information for mechanically ventilated patients in ICU. Major revision at *Management Science*.

## PUBLISHED PAPERS

---

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

---

- *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*
  - POMS-HK International Conference, Hong Kong, China (scheduled) Jan 2023
  - INFORMS Annual Meeting, Indianapolis, Indiana, U.S.A Oct 2022
  - POMS Annual Conference, virtual Apr 2022
  - IARS Annual Meeting, poster presentation, virtual Mar 2022

## PROFESSIONAL EXPERIENCE

---

- *Research Assistant*: Singapore Management University, Jul 2019 – Jun 2020
- *Research Assistant*: Singapore Management University, Aug 2018 – Nov 2018
- *Research Assistant*: Singapore Management University, Sept 2017 – Mar 2018

## PROFESSIONAL ACTIVITIES AND SERVICES

---

### 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

---

### Instructor

- DAO 1704 Decision Analytics (Undergraduate) Spring 2023

### Teaching Assistant

- IE 4214 Revenue Management and Pricing Analytics (Undergraduate) Spring 2022
- DBA 5103 Operations Research and Analytics (Masters) Fall 2022

## HONORS AND AWARDS

---

- NUS Research Scholarship, National University of Singapore, Singapore 2020-2024

## SKILLS

---

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