

GUANG CHENG

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

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

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*.
2. Stephanie Ko, Guang Cheng, Tze Yeong Teng, Joel Goh. Home-First or Hospital-First? A Propensity Score-Weighted Retrospective Cohort Study. Submitted to *Annals of Internal Medicine*.

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*
 - DSI Annual Conference, Atlanta, Georgia, U.S.A. (scheduled) Nov 2023

- INFORMS Annual Meeting, Phoenix, Arizona, U.S.A. Oct 2023
- POMS Annual Conference, Orlando, Florida, U.S.A. May 2023
- POMS-HK International Conference, Hong Kong, China 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

- *Visiting Scholar*: Virginia Tech, Aug 2023 – Dec 2023
- *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

- 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

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

SKILLS

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