Guang CHENG

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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)