# **ZHAOWEI SHE**

Vita (September 2023)

★ zhaoweishe.wordpress.com ⊠ zwshe@smu.edu.sg ♥ @zpipposhe

ACADEMIC POSITIONS

## Singapore Management University (SMU)

Lee Kong Chian School of Business (LKCSB) Assistant Professor of Operations Management

#### **EDUCATION**

Georgia Institute of Technology (GaTech) Ph.D. in Operations Research Thesis: Healthcare Data Analytics for Social Good	Atlanta, GA, USA Dec 2021
University of Illinois at Urbana-Champaign (UIUC) M.S. in Applied Mathematics Thesis: Essays On The Relationship Between Public Transit Usage & Obesi	Champaign, IL, USA Aug 2015 ty
<b>Pennsylvania State University (PSU)</b> M.A. in Economics University Graduate Fellowship	State College, PA, USA Aug 2013
University of Illinois at Urbana-Champaign (UIUC) B.A. in Economics & Mathematics High Distinction in Economics Distinction in Mathematics	Champaign, IL, USA Aug 2011

#### **RESEARCH INTERESTS**

Healthcare Data Analytics: Causal Inference, Machine Learning, Game-Theoretical and Econometric Modeling in Health Care Service Research

#### **RESEARCH PAPERS**

- A. Operation Management Papers
  - [1] Can Big Data Cure Risk Selection in Healthcare Capitation Programs? A Game **Theoretical Analysis** (Z. She, T. Ayer, D. Montanera)
    - Appeared at Manufacturing & Service Operations Management 24(6):3117-3134, 2022.
    - Selected as a finalist of 2019 INFORMS MSOM Best Student Paper Competition
    - Selected as a finalist of 2018 INFORMS Public Sector Operations Research Best Paper Award
  - [2] Strategic Cross Subsidization in Healthcare Capitation Programs: Evidence from Medicare Advantage (Z. She, T. Ayer, B. Gokpinar, D. Hughes)
    - To be submitted
    - Selected as a finalist of 2023 INFORMS Pierskalla Best Paper Award
  - [3] Small Area Estimation of Case Growths for Timely COVID-19 Outbreak Detection (Z. Wang, Z. She, J. Chhatwal, T. Ayer)

Singapore Jan 2022 - Present

- Major revision at **Operations Research**
- Previously circulated as "Estimating County-Level COVID-19 Exponential Growth Rate Using Generalized Random Forests"
- Launched on a website hosted by the Massachusetts General Hospital to provide weekly updates on COVID-19 outbreaks in U.S. counties
- Presented at Machine Learning for Health (ML4H) Workshop of NeurIPS 2020
- [4] The "Netflix Model": A New Payment Model for Asymptomatic Disease Management (Z. She, Y. Zhuo, H. Zhong, T. Ayer, J. Chhatwal)
- **B. Medical and Policy Papers** 
  - [5] Analyzing the Impact of Public Transit Usage on Obesity (Z. She, D.M. King, S.H. Jacobson), *Preventive Medicine* 99 (2017): 264-268.
  - [6] Is Promoting Public Transit an Effective Intervention for Obesity? A Longitudinal Study of the Relation between Public Transit Usage and Obesity (Z. She, D.M. King, S.H. Jacobson), Transportation Research Part A: Policy and Practice 119 (2019): 162-169.
  - [7] Primary Care Comprehensiveness and Care Coordination in Robust Specialist Networks Results in Lower Emergency Department Utilization: A Network Analysis of Medicaid Physician Networks (Z. She, A. Gaglioti, P. Baltrus, C. Li, M. Moore, L. Immergluck, A. Rao, T. Ayer), Journal of Primary Care & Community Health 11 (2020).
  - [8] Interpersonal Primary Care Continuity for Chronic Conditions is Associated with Fewer Hospitalizations and Emergency Department Visits Among Medicaid Enrollees (A. Gaglioti, C. Li, P. Baltrus, Z. She, M. Douglas, M. Moore, A. Rao, L. Immergluck, T. Ayer, A. Bazemore, G. Rust, D. Mack), Journal of the American Board of Family Medicine 36.2 (2023): 303-312.

## HONORS AND AWARDS

- Finalist, 2023 INFORMS Pierskalla Best Paper Award, 2023
- Thos and Clair Muller Fellowship at Health Analytics and Health Systems, GaTech, 2021
- H. Milton Stewart Ph.D. Student Teaching Fellow, GaTech, 2020
- George Family Leadership Fellow, GaTech, 2020
- Finalist, 2019 INFORMS MSOM Best Student Paper Competition, 2019
- Finalist, 2018 INFORMS Public Sector Operations Research Best Paper Award, 2018
- George Family Fellowship, GaTech, 2015, 2016, 2020
- University Graduate Fellowship, PSU, 2011
- High Distinction in Economics & Distinction in Mathematics, UIUC, 2011

## INVITED PRESENTATIONS

**2023:** POMS-HK International Conference, POMS Annual Conference, Orlando, FL, INFORMS Healthcare Conference, Toronto, Canada, INFORMS Annual Meeting, Phoenix, AZ (scheduled), Hong Kong University Business School (Scheduled), Hong Kong Polytechnic University Faculty of Business (scheduled)

**2022:** Duke-NUS Medical School, MSOM Conference, Munich, Germany, INFORMS Annual Meeting, Indianapolis, IN

**2021:** Boston University Questrom School of Business, Northeastern University D'Amore-McKim School of Business, University of Alabama at Birmingham School of Health Professions, Singapore Management University Lee Kong Chian School of Business, University of Alberta School of Business,

POMS Annual Conference, Virtual, INFORMS Healthcare Conference, Virtual, 1st ACM Conference on Equity and Access in Algorithms, Mechanisms and Optimization (EAAMO '21), Virtual, INFORMS Annual Meeting, Virtual

2020: Machine Learning for Health Workshop (ML4H) at NeurIPS 2020, Virtual, INFORMS Annual Meeting, Virtual, University College London School of Management

**2019:** POMS Annual Conference, Washington, D.C., INFORMS Healthcare Conference, Cambridge, MA, INFORMS Annual Meeting, Seattle, WA

2018: MSOM Conference, Dallas, TX, 2nd Workshop on Mechanism Design for Social Good (MD4SG '18), Ithaca, NY, INFORMS Annual Meeting, Phoenix, AZ

## APPLIED RESEARCH AND INDUSTRY EXPERIENCE

#### Lead Developer

COVID-19 Outbreak Detection Tool

Developed Machine Learning Algorithms to Detect Recent COVID-19 Outbreaks in U.S. Counties and to Predict How Fast These Outbreaks Could Spread

#### Summer Internship

Advanced-Operations Research

May 2017 - August 2017 · Developed Mathematical Models to Minimize Total Cost of Care in Crohn's Disease Management

## PROFESSIONAL ACTIVITIES

- Referee/Reviewer: Management Science, Operations Research, Manufacturing & Service Operations Management, Production and Operations Management, Health Care Management Science, Journal of Transport & Health
- Ad Hoc Referee/Reviewer: RAND Journal of Economics, American Economic Journal: Microeconomics
- Conference Reviewer: MSOM Sustainable Operations SIG (2022), MSOM Healthcare SIG (2023)
- Judge: MSOM Best Student Paper Competition (2022,2023), INFORMS Public Sector Operations Research Best Paper Award (2023)
- Session Chair:
  - Healthcare Analytics for Social Good (INFORMS 2023)
  - Financial Incentives in Healthcare Delivery (INFORMS 2018)
  - Healthcare Payment and Risk Adjustment Models (INFORMS Healthcare 2019)
  - Pricing Models in Pharmaceutical and Healthcare Markets (INFORMS 2019)
- Program Committee: MD4SG '19, MD4SG '20, ACM EAAMO '21, ACM EAAMO '22, ACM EAAMO '23
- Working Group Organizer: MD4SG Healthcare Working Group

## **TEACHING EXPERIENCE**

Instructor **OPIM 311 Service Processes** 

**Teaching Assistant** ISyE 6663 Nonlinear Optimization

#### **Teaching Assistant**

ISyE 3232 Stochastic Manufacturing and Service Systems

Spring 2022, Spring 2023 SMU

> Spring 2018 GaTech

Fall 2015, Spring 2016, Spring 2017 GaTech

June 2020 - March 2023

Geisinger Health System

GaTech

#### **RELEVANT SKILLS**

Computer Skills	Python, R, Mathematica, Matlab, Gurobi, Latex
Databases & Data Visualization	SQL, SAS, Microsoft Access, Tableau
Languages	Fluent in English, Chinese Mandarin, Cantonese