

ZHAOWEI SHE

Vita (January, 2021)

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EDUCATION

- Georgia Institute of Technology (GaTech)** *Aug 2015 - Present*
Ph.D. Program in Operations Research
George Family Fellowship
- University of Illinois at Urbana-Champaign (UIUC)** *Aug 2015*
M.S. in Applied Mathematics
- Pennsylvania State University (PSU)** *Aug 2013*
M.A. in Economics
University Graduate Fellowship
- University of Illinois at Urbana-Champaign (UIUC)** *Aug 2011*
B.A. in Economics & Mathematics
High Distinction in Economics
Distinction in Mathematics

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)
- *R&R* at **Manufacturing & Service Operations Management (MSOM)**
 - Selected as a finalist of 2019 **INFORMS MSOM Best Student Paper Competition**
- [2] **Reverse Cross Subsidization in Healthcare Capitation Programs: Evidence from Medicare Advantage** (Z. She, T. Ayer, B. Gokpinar)
- Previously circulated as “Pay-for-Quality or Pay-for-Selection? An Analysis of the Capitation Payment Models in Healthcare”
 - Selected as a finalist of 2018 **INFORMS Public Sector Operations Research Best Paper Award** together with [1]
- [3] **Estimating County-Level COVID-19 Exponential Growth Rate Using Generalized Random Forests** (Z. She, Z. Wang, T. Ayer, A. Toumi, J. Chhatwal)
- 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**

B. Medical and Policy Papers

- [4] **Analyzing the Impact of Public Transit Usage on Obesity** (Z. She, D.M. King, S.H. Jacobson), *Preventive Medicine* 99 (2017): 264-268.

- [5] **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.
- [6] **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).

HONORS AND AWARDS

- Finalist, 2019 INFORMS MSOM Best Student Paper Competition, 2019
- Finalist, 2018 INFORMS Public Sector Operations Research Best Paper Award, 2018
- H. Milton Stewart Ph.D. Student Teaching Fellow, GaTech, 2020
- George Family Leadership Fellow, GaTech, 2020
- George Family Fellowship, GaTech, 2015, 2016, 2020
- University Graduate Fellowship, PSU, 2011
- High Distinction in Economics & Distinction in Mathematics, UIUC, 2011

APPLIED RESEARCH AND INDUSTRY EXPERIENCE

Lead Developer June 2020 - Present
COVID-19 Outbreak Detection Tool *GaTech*

- Developed Machine Learning Algorithms to Detect Recent COVID-19 Outbreaks in U.S. Counties and to Predict How Fast These Outbreaks Could Spread
- This Algorithm Extends the Classical Generalized Random Forests Algorithm to Models with Variable Treatment Intensity

Summer Internship Summer 2017
Advanced-Operations Research *Geisinger Health System*

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

PROFESSIONAL ACTIVITIES

- Referee/Reviewer: *Operations Research, Journal of Transport & Health*
- Ad Hoc Referee/Reviewer: *RAND Journal of Economics, American Economic Journal: Microeconomics, Management Science, Production and Operations Management*
- Session Chair:
 - 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
- Working Group Organizer: MD4SG Healthcare Working Group

TEACHING EXPERIENCE

Teaching Assistant Spring 2018
Nonlinear Optimization (PhD Core Course) *Industrial & Systems Engineering , GaTech*

Teaching Assistant
Stochastic Manufacturing and Service Systems

Fall 2015 - Spring 2016, Spring 2017
Industrial & Systems Engineering , GaTech

Teaching Assistant
Statistical Foundations for Econometrics

Fall 2012 - Spring 2013
Department of Economics, PSU

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

REFERENCES

- **Dr. Turgay Ayer** (Ph.D. Advisor)
George Family Foundation Early Career Professor, Associate Professor
H. Milton Stewart School of Industrial & Systems Engineering, Georgia Institute of Technology
✉ ayer@isye.gatech.edu
- **Dr. Bilal Gokpinar** (Ph.D. thesis committee member)
Head (Operations and Technology, Marketing and Analytics), Professor
School of Management, University College London
✉ b.gokpinar@ucl.ac.uk
- **Dr. Daniel Montanera** (Ph.D. thesis committee member)
Assistant Professor
Seidman College of Business, Grand Valley State University
✉ montaned@gvsu.edu
- **Dr. Anne Gaglioti** (Medical collaborator)
Associate Director of Research, Associate Professor
National Center for Primary Care, Morehouse School of Medicine
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