XIAOQUAN GAO

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EDUCATION

Purdue University West Lafayette, IN, USA
Ph.D. in Industrial Engineering *Aug. 2019 – May. 2024*
Committee: Nan Kong (Co-chair), Hua Cai (Co-chair), Paul Griffin, Pengyi Shi, Seokcheon Lee
Dissertation Title: Improving Care Access to Mitigate the Impact of Opioid Crisis with Real-time Resource management

Peking University Beijing, China
B.S. in Theoretical and Applied Mechanics *Sep. 2015 – July. 2019*
Advisor: Jie Song

RESEARCH INTERESTS

- Healthcare Analytics, Public Service Operations, Stochastic Modeling, Reinforcement Learning

PUBLICATIONS AND WORKING PAPERS

- **Xiaoquan Gao**, Pengyi Shi, and Nan Kong. Breaking the vicious cycle of reincarceration: community corrections placement with an MDP Approach. Working Paper.
  - Finalist, Outstanding Innovation in Service Systems Engineering Award, IISE (2023)
- **Xiaoquan Gao**, Griffin Carter, Pengyi Shi, and Nicole Adams. Implementation of interpretable placement decision support in community corrections. Working Paper.
- **Xiaoquan Gao**, Nan Kong, and Paul M. Griffin. Shortening emergency medical response time with joint operations of UAVs with ambulances. Second Round Revision at *Manufacturing & Service Operations Management*.
- **Xiaoquan Gao**, Sabriya Alam, Pengyi Shi, Franklin Dexter, and Nan Kong. Interpretable machine learning models to predict hospital patient readmission. Under review at *BMC Medical Informatics and Decision Making*.
- **Xiaoquan Gao**, Jianpei Wen, and Jie Song. "Capacity allocation and revenue sharing in healthcare alliances." *Flexible Services and Manufacturing Journal* 32.4 (2020): 829-851.

CONFERENCE PROCEEDINGS

- Nan Kong and Juan C. Paz and **Xiaoquan Gao**. "EMS operations management: simulation, optimization, and new service models" *2022 Winter Simulation Conference (WSC)*. IEEE, 2022.
- **Xiaoquan Gao**, Nan Kong, and Paul M. Griffin. "Dynamic optimization of drone dispatch for substance overdose rescue." *2020 Winter Simulation Conference (WSC)*. IEEE, 2020.
- **Xiaoquan Gao**, Jianpei Wen, and Jie Song. "Simulation study of revenue sharing in healthcare alliances." *2018 winter simulation conference (WSC)*. IEEE, 2018.

SELECTED AWARDS AND HONORS

Finalist, Outstanding Innovation in Service Systems Engineering Award, IISE	2023
Bilsland Dissertation Fellowship, Department of Industrial Engineering, Purdue University	2023
IISE Future Faculty Fellow, Institute for Industrial and Systems Engineers (IISE)	2022
A. H. Ismail Interdisciplinary Program Doctoral Research Travel Award, Purdue University	2022
Outstanding Undergraduate Research, Peking University	2019
Weilin Scholarship and Merit Student, Peking University	2018
Boeing Scholarship and Merit Student, Peking University	2016

Conference Presentations

1. "Breaking the Vicious Cycle: Community Corrections Placement Support with an MDP Approach"
    - INFORMS Healthcare Conference, Toronto, ON Canada, 2023 (Scheduled)
    - POMS Annual Meeting, Orlando, FL, 2023 (Scheduled)
    - INFORMS Annual Meeting, Indianapolis, IN, 2022
    - Manufacturing & Service Operations Management Annual Meeting, Munich, Germany, 2022
    - Production and Operations Management Society Annual Meeting, Virtual, 2022
2. "Shortening emergency medical response time with joint operations of UAVs with ambulances"
    - INFORMS Healthcare Conference, Toronto, ON Canada, 2023 (Scheduled)
    - Winter Simulation Conference, Singapore, 2022
    - POMS Annual Meeting, Virtual, 2022
    - INFORMS Annual Meeting, Virtual, 2021
    - Winter Simulation Conference, Virtual, 2020
    - INFORMS Annual Meeting, Virtual, 2020
3. "Capacity Allocation and Revenue Sharing in Healthcare Alliances"
    - Winter Simulation Conference, Gothenburg, Sweden, 2018
    - International Conference of the Chinese Scholars Association for Management Science and Engineering (CSAMSE), Ningbo, China, 2018

Services

Volunteer: Student monitor for INFORMS Healthcare Conference 2021

Session Chairs: WSC 2020; POMS 2022, 2023; INFORMS Healthcare 2023

Reviewer: Health Care Management Science, IEEE Robotics and Automation Letters, IIE Transactions on Healthcare Systems Engineering, Flexible Services and Manufacturing Journal, IEEE International Conference on Automation Science and Engineering (CASE) 2020 and 2022