SALOUMEH SADEGHZADEH

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ACADEMIC APPOINTMENTS

Assistant Professor, Business Analytics and Operations *August 2019 - Present*

School of Management, State University of New York, Binghamton University

EDUCATION

Virginia Tech - Blacksburg, VA, United States *August 2015 - May 2019*

Ph.D. in Industrial and Systems Engineering
Major: Operations Research

Dissertation: Optimal Data-driven Methods for Subject Classification in Public Health Screening
Advisors: Ebru Bish (co-chair), Douglas Bish (co-chair)

Koç University - Istanbul, Turkey *August 2013 - June 2015*

M.Sc. in Industrial Engineering
Major: Operations Research

Thesis: Competition versus Cooperation of Public and Private Healthcare Centers
Advisors: Lerzan Örmeci (co-chair), Pelin Canbolat (co-chair)

Sharif University of Technology - Tehran, Iran *August 2009 - June 2013*

B.Sc. in Industrial Engineering

All graduate education has been supported by scholarships and assistantships.

RESEARCH INTERESTS

My research interests lie at the intersection of stochastic modeling, optimization, and data analytics methodologies, with a particular focus on data-driven decision-making in healthcare and public policy domains.

Research Methodologies:

Data-driven Modeling, Machine Learning, Stochastic Optimization, Statistics, Applied Probability, Dynamic Programming, Queuing Theory, Game Theory.

PUBLICATIONS AND WORK IN PROGRESS

1. **S. Sadeghzadeh**, E. K. Bish, and D. R. Bish. Optimal data-driven policies for disease screening under noisy biomarker measurement. *IISE Transactions, 52 (2), 166-180, 2020.*

- Featured in IISE's Industrial and Systems Engineer magazine
- Nominated for the 2020 Best Application Paper Award, IISE Transactions on Operations Engineering and Analytics

2. L. Begdache, **S. Sadeghzadeh**, G. DeRose, and C. Abrams. Diet, exercise, lifestyle, and mental distress among young and mature men and women: a repeated cross-sectional study. *Nutrients, 13(1), 24, 2021.*

3. NFACT Research Team. A multi-site analysis of the prevalence of food security in the United States, before and during the COVID-19 pandemic. *Current Developments in Nutrition, 5 (12), nzab 135, 2021.*

- A study based on more than 27,000 samples collected from 18 study sites across 15 states, as part of the National Food Access and COVID research Team (NFACT) collaboration formed to assess food security over different U.S. study sites throughout the pandemic

4. **S. Sadeghzadeh**, P. G. Canbolat, and E. L. Örmeci. Healthcare subsidy management in a system with public and private sectors. *under second round of review with European Journal of Operational Research.*

5. L. Begdache, **S. Sadeghzadeh**, P. Pearrmutter, G. Derose, P. Krishnamurthy, and A. Koh. Physical Fitness, Dietary Factors, Saliva Cortisol, Time of the Week: Their Modulatory Effect on Mental Well-being. *Submitted to Stress & Health.*

6. P. Gadhoke, **S. Sadeghzadeh**, and B. Brenton. Healthcare, food, and job insecurity during the COVID-19 pandemic in New York City. *Submitted to Public Health.*

CONFERENCE PRESENTATIONS

1. **S. Sadeghzadeh**, E. K. Bish, and D. R. Bish. Optimal data-driven policies for disease screening under noisy biomarker measurement. *IISE Annual Conference, Virtual, May 2021.*

2. **S. Sadeghzadeh**, E. K. Bish, and D. R. Bish. A data-driven policy to improve newborn screening for cystic fibrosis. *INFORMS Annual Meeting, Seattle, Washington, October 2019.*

3. **S. Sadeghzadeh**, E. K. Bish, and D. R. Bish. Optimal biomarker testing and subject classification under limited information. *INFORMS Annual Meeting, Phoenix, Arizona, November 2018.*

4. **S. Sadeghzadeh**, H. El-Hajj, E. K. Bish, and D. R. Bish. Optimal newborn screening algorithm for cystic fibrosis. *INFORMS Annual Meeting, Phoenix, Arizona, November 2018.*

5. **S. Sadeghzadeh**, P. G. Canbolat, and L. E. Örmeci. Analysis of a healthcare system consisting of a public and a private center. *INFORMS Annual Meeting, Phoenix, Arizona, November 2018.*

6. **S. Sadeghzadeh**, E. K. Bish, and D. R. Bish. Establishing an optimal IRT threshold for cystic fibrosis. *INFORMS Annual Meeting, Houston, Texas, October 2017.*

7. **S. Sadeghzadeh**, P. G. Canbolat, and L. E. Örmeci. Competition versus cooperation of public and private healthcare centers. *INFORMS Applied Probability Society Conference, Istanbul, Turkey, July 2015.*

INVITED PRESENTATIONS

1. **S. Sadeghzadeh**. Optimal newborn screening policies for cystic fibrosis. *Industrial and Systems Engineering Department, Wayne State University, Detroit, MI.*

2. **S. Sadeghzadeh**. Optimal data-driven policies for disease screening. *Transdisciplinary Areas of Excellence (TAE), Data Science, Binghamton University, Binghamton, NY.*

3. **S. Sadeghzadeh**. Optimal disease screening under noisy biomarker measurements. *Systems Science and Industrial Engineering Department, Binghamton University, Binghamton, NY.*

TEACHING EXPERIENCE

Binghamton University, School of Management

SCM 565 - Supply Chain Management (MBA) (21 students) *Fall 2021*
Overall teaching effectiveness: 3.8/4

SCM 365 - Supply Chain Management (Undergraduate) (24 students) *Fall 2021*
Overall teaching effectiveness: 3.6/4

SCM 581B - Healthcare Operations & Analytics (MBA) (42 students) *Spring 2021*
Overall teaching effectiveness: 3.5/4

SCM 465 - Managing Healthcare Operations (Undergraduate) (23 students) *Spring 2021*
Overall teaching effectiveness: 3.9/4

SCM 565 - Supply Chain Management (MBA) (23 students) *Fall 2020*
Overall teaching effectiveness: 3.9/4

SCM 365 - Supply Chain Management (Undergraduate) (26 students) *Fall 2020*
Overall teaching effectiveness: 3.8/4

SCM 581B - Healthcare Operations & Analytics (MBA) (30 students) *Spring 2020*
Overall teaching effectiveness: 3.9/4

SCM 465 - Managing Healthcare Operations (Undergraduate) (13 students) *Spring 2020*
Overall teaching effectiveness: 4/4

SCM 565 - Supply Chain Management (MBA) (41 students) *Fall 2019*
Overall teaching effectiveness: 3.9/4

SCM 365 - Supply Chain Management (Undergraduate) (17 students) *Fall 2019*
Overall teaching effectiveness: 3.6/4

Virginia Tech, Department of Industrial and System Engineering

ISE 3424 - Discrete-Event Simulation (Undergraduate) (185 students) *Spring 2018*
Overall teaching effectiveness: 5.4/6

ISE 3424 - Discrete-Event Simulation (12 students) *Summer 2017*
Overall teaching effectiveness: 5.3/6

SELECTED CERTIFICATES

Teaching Online Certificate *May 2020*
Binghamton University

This program provides current research and practices regarding online learning, as well as related instructional design concepts and technologies.

Future Professoriate Graduate Certificate *May 2018*
Virginia Tech

This graduate certificate, offered by the Graduate School at Virginia Tech, aims to prepare future faculty and academic leaders.
Courses: Preparing Future Professoriate, Contemporary Pedagogy, Proposal Writing for Public and Private Sponsors

SELECTED HONORS AND AWARDS

Binghamton University Teaching Honor Roll *December 2019 - December 2021*
Binghamton University

2019 Career Champion *October 2019*
Binghamton University

"A Career Champion is defined as someone who empowers students to find their purpose, identify and reach their goals, prepare for and solidify future professional plans or gain full-time employment."

First place in INFORMS Student Video Competition: OR What? *March 2019*
Virginia Tech INFORMS Student Chapter

Team Members: Aakash Bhatt, Paul Bartholomew, Saloumeh Sadeghzadeh, Ngoc Nguyen, and Hussein El Hajj

Graduate Scholarship *August 2015 - August 2016*
Virginia Tech, Department of Industrial and System Engineering

PROFESSIONAL ORGANIZATIONS

National Food Access and COVID Research Team (NFACT), researcher

Global Burden of Disease (GBD), Institute for Health Metrics and Evaluation, University of Washington, collaborator

Center for Collective Dynamics of Complex Systems (CoCo), Binghamton University, member

Transdisciplinary Areas of Excellence (TAE), Binghamton University, member

Health Sciences
Data Science

Institute for Operations Research and Management Sciences (INFORMS), member

Health Applications Society
Decision Analysis Society
Manufacturing and Service Operations Management Society
Optimization Society
Applied Probability Society
Women in OR/MS Forum

PROFESSIONAL SERVICE

Reviewer, European Journal of Operational Research	*2021*
Member, Search Committee, Finance, School of Management, Binghamton University	*2021*
Member, Undergraduate Committee, School of Management, Binghamton University	*2021*
Reviewer, Omega: The International Journal of Management Science	*2020*
Reviewer, SAGE Publications, Inc.	*2020*
Judge, INFORMS 2020 Poster Competition	*2020*
Member, Search Committee, Operations, School of Management, Binghamton University	*2020*
Member, Search Committee, Finance, School of Management, Binghamton University	*2019*
Member, Undergraduate Committee, School of Management, Binghamton University	*2019*

INDUSTRIAL EXPERIENCE

Research Collaborator *Throughout Ph.D. studies*
North Carolina State Laboratory of Public Health

Job Description:

Data analysis, reporting, and development of testing policies to improve outcomes of the newborn screening process for cystic fibrosis.

COMPUTER SKILLS

R, Python, Matlab, Mathematica, VBA, C++, Simio, @Risk, Latex, standard office packages: Microsoft Excel, Word, PowerPoint.

HOBBIES

Alpine Climbing, Table Tennis, Music, Traveling.