

# Saeideh Mirghorbani

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Binghamton University  
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**Academic Positions**      *Assistant Professor, Business Analytics and Operations*      Fall 2018-Present  
Binghamton University (SUNY), Binghamton, NY

**Education**      *Ph.D., Operations Management*      2014-2018  
The University of Alabama, Tuscaloosa, AL  
Dissertation Title: Medical Decision Making in Patients with Chronic Diseases  
Advisors: Dr. Sharif Melouk and Dr. John Mittenthal

*M.S., Production Management*      2009-2011  
Allameh Tabatabaee University, Tehran, Iran

*B.S., in Industrial Management*      2005-2009  
Allameh Tabatabaee University, Tehran, Iran

**Research Interests**      **Applied operations research in healthcare systems, Markov decision processes, optimization, simulation, data mining, machine learning**

**Publications**

- **Mirghorbani, S.**, S. Melouk, and J. Mittenthal. 2020. The Effect of Adherence on Antihypertensive Therapy Plans in Patients with Type 2 Diabetes. Under second review in *IIEE Transactions on Healthcare System Engineering*.
- **Mirghorbani, S.**, S. Melouk, and J. Mittenthal. 2020. Impact of Patient Adherence on Treatment Cost. Under review in *Omega*.
- **Mirghorbani, S.**, S. Melouk, and J. Mittenthal. 2020. Using Partially Observable Markov Decision Processes to Improve Alzheimer’s Disease Screening. To be submitted to *Manufacturing & Service Operations Management*.
- **Mirghorbani, S.** 2020. Using Machine Learning to Predict Co-morbidities in Patients with Diabetes. In Preparation.
- **Mirghorbani, S.**, S. Sadeghzadeh, and B. Si. Hospitalization Management for Pandemics. Working Paper.
- **Mirghorbani, S.**, S. Derhami. Inventory Planning for High-value Substitutable Products in the Presence of Seasonal Demand and Long Lead Times. Working paper.

**Academic Experience**      *Instructor*      Fall 2018 - Present  
Binghamton University (SUNY), Binghamton, NY

- SCM 560 - Decision Modeling & Risk Analysis
- MGMT 507 - Operations Management
- SCM 360 - Spreadsheet Modeling & Decision Making
- SCM 375 - Applied Models Operations Management

The University of Alabama, Tuscaloosa, AL      Fall 2016 - Summer 2017

- OM 300 - Introduction to Operations Management

*Teaching Assistant*  
The University of Alabama, Tuscaloosa, AL

Fall 2014 - Spring 2018

## Conferences & Workshops

### *Conferences*

**Mirghorbani, S.**, S. Melouk, and J. Mittenthal. Using Partially Observable Markov Decision Processes to Improve Alzheimer's Disease Screening.

- Center for Collective Dynamics of Complex Systems at Binghamton University, 2019, Binghamton, NY.
- INFORMS Annual Meeting 2019, Seattle, WA.
- POMS Annual Meeting 2019, Washington D.C.

**Mirghorbani, S.**, S. Melouk, J. Mittenthal. The Effect of Adherence on the Anti-Hypertensive Therapy Plans in Patients with Diabetes.

- POMS Annual Meeting 2018, Houston, TX.
- DSI Annual Meeting 2017, Washington, D.C.
- INFORMS Annual Meeting 2017, Houston, TX.

**Mirghorbani, S.**, S. Melouk, J. Mittenthal. Anti-hypertensive Therapy Plan for Patients with Diabetes.

- INFORMS Healthcare 2017 Conference. Rotterdam, Netherlands.

**Mirghorbani, S.**, S. Melouk, J. Mittenthal. Optimal Statin Therapy Plan For Diabetic Patients.

- INFORMS Annual Meeting 2016, Nashville, TN.

### *Workshops*

- Data-driven Approaches to the Humanities, Spring 2019, Binghamton University, Binghamton, NY.
- INFORMS Annual Meeting New Faculty Colloquium, Fall 2018, Phoenix, AZ.
- Conducted Python Workshop, Spring 2018, The University of Alabama, Tuscaloosa, AL
- Organized R Workshop, Fall 2017, The University of Alabama, Tuscaloosa, AL
- Conducted "L<sup>A</sup>T<sub>E</sub>X" Workshop, Fall 2016, The University of Alabama, Tuscaloosa, AL
- INFORMS Annual Meeting Doctoral Students Colloquium. Fall 2016. Nashville, TN.

## Honors & Awards

- SUNY Binghamton Teaching Honor Roll: 2019.
- International Travel Grant, June 2017, \$2300, The University of Alabama, Tuscaloosa, AL
- Summer Excellence in Research (SEiR) Grant, 2016, \$5000, Culverhouse College of Commerce & Business Administration, The University of Alabama, Tuscaloosa, AL
- Student Fellowship, Master's Degree Program, Production Management, 2009, Allameh Tabatabaee University, Tehran, Iran
- Student Fellowship, Bachelor's Degree Program, Industrial Management, 2005, Allameh Tabatabaee University, Tehran, Iran

## Service & Leadership

### *Mentor*

- Women in OR/MS (WORMS) mentorship program Fall 2019 - Present

### *Committee Member*

- Undergraduate Curriculum Committee Fall 2018 - Present

### *Session Chair*

- INFORMS Annual Meeting 2017

### *INFORMS Student Chapter, The University of Alabama*

- President Summer 2017 - Spring 2018  
- Won INFORMS Cum Laude award in 2018
- Secretary Fall 2016

### *Iranian Student Association, The University of Alabama*

- Secretary Fall 2016 - Fall 2017

### *Ad-hoc Referee*

- International Journal of Environmental Research and Public Health
- International Journal of Production Economics
- Journal of the Operational Research Society

## Industry Experience

### *System Group, Tehran, Iran*

System Analyst of Service Management Project Jun 2011 - May 2014

- This position involved analyzing documents required for the implementation of the Infrastructure Technology Information Library (ITIL) standard. As part of this project, several tools were evaluated and ultimately Service Manager Console was selected as the main tool.

### Coordinator of Service Management Project

Dec 2011 - Jan 2012

- As part of a customer satisfaction project, we used the SERVQUAL model as a measuring tool in order to evaluate the customer service quality. We discovered 10% increase in customer satisfaction proportion to last year.

## Professional Society Memberships

### *Institute for Operations Research and the Management Sciences (INFORMS)*

- Health Applications Society
- Optimization Society
- Manufacturing and Service Operations Management Society
- Women in OR/MS Forum

### *Production and Operations Management Society (POMS)*

### *Decision Sciences Institute (DSI)*

## Skills

**Programming:** Python, R

**Optimization:** CPLEX, LINDO/LINGO

**Statistical Packages:** SPSS, JMP, SAS Enterprise Miner

**Other Software:** Arena, RStudio, Scipy, Numpy, Solver, Microsoft Visual Studio, Microsoft Office, Palisade Risk Analysis and Decision Making Tools, Latex

## Personal Interest & Activities

- Oil Color & Pastel Painting, Pilates, Swimming