Samira Fazel

Edwin L. Cox School of Business (SMU) • 214-768-7355 • samira@smu.edu • Website

ACADEMIC POSITIONS

Cox School of Business, Southern Methodist University Fall 2025-Present
Clinical Professor in Information Technology and Operations Management

Olin Business School, Washington University in Saint Louis Fall 2019-June 2025
Lecturer in Data Analytics

Math/Stats/Industrial Engineering, Louisiana Tech University Fall 2018-July 2019
Visiting Assistant Professor

EDUCATION

Industrial and Systems Engineering Detroit, Michigan
Ph.D., Wayne State University 2018
Dissertation Title: Managing Operational Efficiency & Health Outcomes at Outpatient Clinics through Effective Scheduling

Mathematical Statistics Detroit, Michigan
M.Sc., Wayne State University 2012
Essay Title: Continuous Time Stochastic Inventory Models for Deteriorating Stock-Dependent Items with Replenishment Lead Time

Pure Mathematics Isfahan, Iran
M.Sc., Isfahan University 2008
Thesis Title: Proximal Point Algorithm on Riemannian Manifolds

Applied Mathematics Isfahan, Iran
B.Sc., Payam-Noor University of Isfahan 2004

PROFESSIONAL EDUCATION

Generative AI with Large Language Models February 5 - current
Coursera: by DeepLearning.AI & Amazon Web Services 2025

Applied Data Science Program March 19 - June 11
MIT Professional Education, 2022
Rank: 5 out of 83 participants
Score: 685 out of 700

Courses:

- Foundations for Data Science
- Data Analysis & Visualization
- Machine Learning

- Practical Data Science
- Deep Learning
- Recommendation Systems
- Capstone Project

Link to the projects completed: https://eportfolio.mygreatlearning.com/samira-fazel-anvaryazdi

Discrete Choice Analysis: Predicting Individual Behavior and Market Demand June 6-10
MIT Professional Education 2022

HONORS AND AWARDS

- Olin Research Award, Washington University in St Louis 2024
- Blue Cross Blue Shield of Michigan Foundation student award 2018
- Integrating Curriculum with Entrepreneurial Mindset (ICE) 2018
  KEEN ICE, LTU & KEEN
- Graduate student professional travel award 2017
  Wayne State University, Detroit, MI
- Graduate Employees Organizing Committee (GEOC) teaching award 2017
  Wayne State University, Detroit, MI
- Dr. Alfred L. Nelson Award, In recognition of outstanding achievement in the Master's Program, Wayne State University, Mathematics Department, Detroit, MI 2013
- Graduate research/teaching assistantship 2012-2018
  Industrial and Systems Engineering Department
  Wayne State University, Detroit, MI
- Graduate research/teaching assistantship 2010-2012
  Mathematics department, Wayne State University, Detroit, MI

RESEARCH INTERESTS

- Data-driven decision-making with application in healthcare and business problems
- Scheduling through stochastic programming and robust optimization techniques with application in healthcare and business problems
- Resource allocation to improve access to community-based healthcare

COURSE DEVELOPMENTS AND TEACHING EXPERIENCES

Olin Business School, Washington University in Saint Louis Fall 2019-Summer 2025
Lecturer

- Managerial Statistics
- Data Analytics for Business Leaders
- Introduction to Python And Data Science
- Strategic Decision Making with Data Analytics

Math/Stats/Industrial Engineering, Louisiana Tech University Fall 2018-July 2019
Visiting Assistant Professor
Courses taught

- Statistical Methods
- Theory of Probability
- Theory of Statistics
- Operations Research
- Design of Experiments

Industrial & Systems Engineering, Wayne State University Fall 2012-May 2018
Graduate Teaching Assistant

- Fundamentals of Six-Sigma
- Applied Engineering Statistics
- Deterministic Optimization
- Introduction to Six-Sigma
- Project Management
- Production Control

Mathematics Department, Wayne State University Fall 2010-August 2012
Instructor

- Mathematics in Today's World
- Algebra with Trigonometry
- Elementary Functions

RESEARCH

PUBLICATIONS

- **Fazel Anvaryazdi, Samira**, M. Madadi, M. Klein, A. Erdogan, Scheduling Mobile Mammography Facilities For Community-based Care Considering Breast Cancer Risk, Submitted.

- Zhang, Jifan, Salih Tutun, **Samira Fazel Anvaryazdi**, Mohammadhossein Amini, Durai Sundaramoorthi, and Hema Sundaramoorthi. "Management of resource sharing in emergency response using data-driven analytics." *Annals of Operations Research* 339, no. 1 (2024): 663-692. (**co-first author**) ANOR

- **Anvaryazdi, Samira Fazel**, Saravanan Venkatachalam, and Ratna Babu Chinnam. "Appointment scheduling at outpatient clinics using two-stage stochastic programming approach." IEEE Access 8 (2020): 175297-175305.

- Reis, Louis, and **Samira Fazel Anvaryazdi**. "Work In Progress: Assessing Student Performance and Perceptions in a "Flipped" Statics and Mechanics Engineering Course." In *2019 ASEE Annual Conference & Exposition*. 2019.

- **Fazel Anvaryazdi, Samira.** "Managing Operational Efficiency And Health Outcomes At Outpatient Clinics Through Effective Scheduling." Doctoral dissertation, Wayne State University, (2018).

- **Fazel Anvaryazdi, Samira**, Continuous Time Stochastic Inventory Models for Deteriorating Stock-Dependent Items with Replenishment Lead Time, Master Essay, Wayne State University, (2012)

- S. Venkatachalam, **S. Fazel Anvaryazdi**, Proposal for undergraduate courses in Big Data & Business Analytics, 2017

RESEARCH IN PROGRESS

- Utilizing Machine Learning Approach for Adaptive Strategies in HIV Care Retention.

- Developing an Analytical Framework for the Optimal Administration of Anticoagulants in Long-COVID Management.

- Mean-Risk Appointment Scheduling Using Two-stage Stochastic Programming

ACADEMIC SERVICE

Undergraduate Programs Curriculum Committee June 2023 – December 2024
Olin Business School, Washington University in Saint Louis

Acted as a reviewer for "Journal of Modelling in Management", "Annals of Operations Research", and "Healthcare Analytics"

Acted as an Invited Reviewer for the Best Paper Award competition 2021 & 2022
POMS College of Healthcare Operations Management (CHOM)

Served as judge in Small Business School Challenge (SBSC) 2021

PROJECTS

Nursing Students Scholars Program with Parkinson's Resource Center 2018
(D. Hood, T. Haskins, S. Fazel Anvaryazdi). Louisiana Tech University

Metallized Ceramic Filled Filaments for 3D Printing with application in healthcare 2018
(D. Mills, S. Fazel Anvaryazdi). Louisiana Tech University

MENTORING - GRADUATE STUDENTS (COMMITTEE)

Sharifa Minkabo, "Inference for Three-parameter M-Wright Distributions with Applications"
Graduate student, Louisiana Tech University 2018-2019

Farid Heidarnejad, "Model-based and Population-based Optimization of Abdominal Aortic Aneurysm Surveillance and Surgery Protocols", Graduate student, Louisiana Tech University 2019

MENTORING - UNDERGRADUATE STUDENTS

Andrea Sibley, "Predicting Win Rates in Overwatch League", Undergraduate Research, Louisiana Tech University 2018-2019

PRESENTATIONS AND POSTERS

POMS 2024 (Minneapolis, MN), S. Fazel Anvaryazdi, S. Ayca Erdogan, M. Klein, M. Madadi, Scheduling Mobile Mammography Facilities For Community-based Care Considering Breast Cancer Risk, *Presentation*

Global Health Early Stage Investigator meeting 2023 (Washington University in Saint Louis), S. Fazel Anvaryazdi, S. Ayca Erdogan, M. Klein, M. Madadi, Scheduling Mobile Mammography Facilities For Community-based Care Considering Breast Cancer Risk, *Presentation*

POMS 2022 (Virtual), S. Fazel Anvaryazdi, S. Ayca Erdogan, M. Klein, M. Madadi, Scheduling Mobile Mammography Facilities For Community-based Care Considering Breast Cancer Risk, *Presentation*

INFORMS 2021 (Virtual), S. Fazel Anvaryazdi, S. Ayca Erdogan, M. Klein, M. Madadi, Scheduling Mobile Mammography Facilities For Community-based Care Considering Breast Cancer Risk, *Presentation*

POMS 2021 (Virtual), S. Fazel Anvaryazdi, S. Ayca Erdogan, M. Klein, M. Madadi, Scheduling Mobile Mammography Facilities For Community-based Care Considering Breast Cancer Risk, *Presentation*

INFORMS 2020 (Virtual), S. Fazel Anvaryazdi, S. Ayca Erdogan, M. Madadi, M. Klein, Mobile Mammography Facilities For Community-based Care Considering Breast Cancer Risk, *Presentation*

INFORMS 2019 (Seattle, WA), Adaptive Joint Scheduling and Vehicle Routing Problem for Community-based Healthcare Delivery, S. Fazel Anvaryazdi, M. Madadi, *Presentation*

ICEIME 2019 (Prague-Czech Republic), Risk-neutral Two-stage Stochastic Mixed-Integer Linear Programming in Scheduling multiple patient types at Outpatient Clinic under Patients' no-show behavior and preference, S. Fazel Anvaryazdi, S. Venkatachalam, R. B. Chinnam, *Presentation*

Louisiana Tech Applied and Natural Science Research Day April 11, 2019, Student Nursing Scholars of the Parkinson Resource Center at LA Tech, Collins, N., Moran, M.R., Sellers, A., Strange, S., Haskins, T., Hood, D., & Fazel, S., *Poster presentation*

INFORMS 2018 (Phoenix, AZ), Improving Patient Flow Metrics at Outpatient Clinics Through Effective Scheduling By Modelling Two-Stage Mean Risk Stochastic Programming, S. Fazel Anvaryazdi, S. Venkatachalam, R. B. Chinnam, *Presentation*

INFORMS 2017 (Houston, TX) "Managing Operational Efficiency & Health Outcomes at Outpatient OB/GYN Clinics through effective Scheduling", S. Fazel Anvaryazdi, S. Venkatachalam, R. B. Chinnam, *presentation*

Graduate and Postdoctoral Research Symposium 2017 (Wayne State University) "Managing Operational Efficiency & Health Outcomes at Outpatient Clinics through effective Scheduling: Modeling Risk-neutral Two-stage Stochastic Mixed-Integer Programming", S. Fazel Anvaryazdi, S. Venkatachalam, R. B. Chinnam, *presentation and poster*

GRS, Graduate Research Symposium 2017 (Industrial & Systems Engineering, Wayne State University) "Managing Operational Efficiency & Health Outcomes at Outpatient Clinics through effective Scheduling: Modeling Risk-neutral Two-stage Stochastic Mixed-Integer Programming", S. Fazel Anvaryazdi, S. Venkatachalam, R. B. Chinnam, *presentation and poster*

Research Week 2007 (Isfahan University) "Minimization of Convex functions on Hadamard Manifolds", S. Fazel Anvaryazdi, Mohammad Reza Pouriayevali, *presentation*

Research Week 2006 (Isfahan University) "On the Convergence of the Proximal Point Algorithm for Convex Minimization", S. Fazel Anvaryazdi, Mohammad Reza Pouriayevali, *presentation*

CERTIFICATIONS

- Teaching with Cases: Engage, Energize, and Challenge Your Students, 2022
  Harvard Business Publishing Education, HBS Publishing Seminars
- Integrating Curriculum with Entrepreneurial Mindset (ICE) Workshop 2018
  LTU & KEEN
- Pedagogy Teaching Workshop, Lawrence Technological University 2017
- NIH BEST Program's Phases I-II Workshop, Wayne State University 2016-2017
- Pedagogy Journal Club, Office for Teaching and Learning (OTL) 2016-2018
  Wayne State University
- International Teaching Assistants (ITA) Communication Skills, 2010
  English Language Institute, Wayne State University

PROGRAMMING AND SKILLS

- Software Programming: PYTHON, Tableau, Excel, MATLAB, R, STATA,
- Solvers: CPLEX, GUROBI, Excel solver

- Application: Weka, GAMS, AutoCAD
- Language: English, Farsi (native), Intermediate in Arabic
- Hobbies & activities: Piano, Water color, Volleyball, and acting in the short movie "Broken Glass" directed by Parisa Ghaderi

SCHOLARLY AND PROFESSIONAL MEMBERSHIPS

- Member of "Global Health Early Stage Investigator" research team at Washington University in Saint Louis
- Mentor, Specialized Master Programs (SMP), Olin Business School, Washington University in Saint Louis, 2020
- Faculty Scholar in the Institute for Public Health, Washington University in Saint Louis, 2019-Current
- Invited Speaker: International Conference and Exhibition on Industrial and Manufacturing Engineering, ICEIME 2019 & 2020
- Committee member: Undergraduate Programs Curriculum Committee, Olin Business School, Washington University in Saint Louis, June 2023 - current
- Graduate Research Symposium (GRS), Industrial & Systems Engineering Department, Wayne State University, 2016 & 2017
- Student volunteer: Big Data Symposium, Wayne State University, 2015
- American Mathematical Society (AMS)
- Institute for Operations Research and the Management Sciences (INFORMS)
- Production and Operations Management Society (POMS)
- Graduate Employees Organizing Committee (GEOC)