Shakiba Enayati | CV

Department of Management, Information Systems, and Analytics
School of Business and Economics, State University of New York, Plattsburgh, 12901
✉ senayati@umsl.edu

Education

North Carolina State University	**Raleigh, NC**
Ph.D. of Operations Research, College of Engineering	*2012–2017*
Tarbiat Modares University	**Tehran, Iran**
M.S. of Industrial Engineering	*2010–2012*
Iran University of Science and Technology	**Tehran, Iran**
B.S. of Industrial Engineering	*2004–2009*

Academic Experience

Assistant Professor of Analytics
State University of New York, Plattsburgh   *August 2017–Present*
Department of Management, Information Systems, and Analytics

- Research and funding endeavors in analytical modeling and optimization of healthcare systems,
- Teaching responsibilities in graduate level predictive modeling, optimization and simulation and junior level of quantitative modeling and methods in business,
- Collaboration with North Carolina State University, University of North Carolina, Dartmouth College, Christiana Care Health System, NY State Department of Health, University of Toronto, and Toronto Emergency Medical Services.

Interim Director of the MS in Data Analytics Program
State University of New York, Plattsburgh   *August 2019–Present*

- Overseeing the required steps to evaluate the academic goals and outcomes for the newly launched MS program in Data Analytics according to the proposed strategic objectives
- Planning budgets and approving/facilitating recruitment, designing part-time alternatives for the program
- Initiating and establishing industry connection for the program's capstone project

Research Assistant
North Carolina State University   *2012–May 2017*

- Ph.D. Dissertation research entitled "Improving the Quality of Service for Emergency Medical Service Systems under Realistic Operational Restrictions."
- Sponsored Projects:
  - In collaboration with ***American Red Cross***: Disaster Readiness-Optimizing the National Fleet of Emergency Response Vehicles
  - In collaboration with ***Laboratory for Analytic Sciences (LAS)***:
    - An Adaptive Approach for Resource Allocation to Maximize Quality of Experience Considering Misclassification Errors: An Analogy for the Analytic Computing Systems
    - Multi-priority Resource Allocation In a Cluster Computing Environment
  - In collaboration with ***Duke University Hospital***: A Decision Support Tool to Diagnose and Manage Irritable Bowel Syndrome
  - Location and Allocation of Limited Number of ChemPacks in Hospitals of North Carolina State Using Non-dominated Sorting Genetic Algorithm and Voronoi Diagram

Research Interests

Analytical modeling and optimization of stochastic/dynamic complex systems as applied to healthcare and service systems. Also, predictive analytics to evaluate, anticipate, and recommend actions for health outcomes at both individual and system levels. Google Scholar Link to access publications.

Peer-Reviewed Publications and Funding Endeavors

Journal Articles:

Enayati S., Özaltin, O.Y., Optimal Influenza Vaccine Distribution with Equity. *European Journal of Operational Research*, Accepted on November 2019, *In Press*.

Enayati S., Mayorga M.E., Toro-Diaz H., Mclay L.A., 2019. Identifying Trade-offs in Equity and Efficiency for Simultaneously Optimizing Location and Multipriority Dispatch of Ambulances, *International Transactions in Operational Research*, 26(2), pp. 415-438.

Enayati S., Mayorga, M.E., Rajagopalan, H.K. and Saydam, C., 2018. Real-time ambulance redeployment approach to improve service coverage with fair and restricted workload for EMS providers. *Omega*, 79, pp.67-80.

Enayati S., Özaltin, O.Y., Mayorga, M.E. and Saydam, C., 2018. Ambulance Redeployment and Dispatching under Uncertainty with Personnel Workload Limitations. *IISE Transactions*, 50(9), pp. 777-788.

Book Chapters:

Enayati S., Özaltin O.Y., Mayorga M.E., "Designing Ambulance Service Districts under Uncertainty", *Optimal Districting and Territory Design: Models, Algorithms, and Applications*, Invited Book Chapter, *Springer International Series in Operations Research & Management Science*, Accepted on March 2019, *In Press*.

Enayati S., Ayoub A., "Applying Mathematical Optimization to Efficiently Make Better Decisions for Extrusion Technology: State-of-the-Art and Opportunities", *Biomass Extrusion and Reaction Technologies: Principles to Practices and Future Potential*, Invited Book Chapter, *American Chemical Society*, May 2019, DOI: 10.1021/bk-2018-1304.ch013.

Conference Proceedings:

Enayati S., Mayorga M.E., Rajagopalan H.K., Saydam C., Real-time Ambulance Redeployment Problem with Workload Restrictions, *Proceeding of the Production and Operations Management Society (POMS) Conference*, 2014, Atlanta, GA.

Rosenberg M., Sumner D., Williams C., **Enayati S.,** Mayorga M.E., Disaster Readiness: Managing an Emergency Response Fleet Through Operations Research, *Proceeding of the IISE Conference*, 2018, Orlando, FL.

Under Review/Working Papers:

Ansari S., **Enayati S.,** Optimal Selection of Policies to Dynamically Subside the Epidemic Burden of Prescribed Opioid Pill Diversion.

Enayati S., Özaltin, O.Y., Reliable Plant Location with Order.

Enayati S., Özaltin, O.Y., Preventive Influenza Vaccine Allocation under Uncertainty.

Teaching Interests

Undergraduate and graduate-level courses in operations research (e.g. linear programming, integer programming, combinatorial optimization, logistics, supply chain management, production and inventory control), operations management, predictive analytics, and data mining.

Teaching Experience

Instructor	**University of Missouri- Saint Louis**

- SCMA 4350/6350: Prescriptive Analytics and Optimization *Fall 2020*

Instructor	**State University of New York-Plattsburgh**

- MSA 560: Optimization and Simulation Models (***Newly Developed***) *Spring 2020*
  (Avg. Eval. 4.6/5.0)
- MGM 350: Intro. to Math. Modeling in Business (Avg. Eval. 4.2/5.0)
- MGM 445: Principles of Operations Management (Avg. Eval. 4.1/5.0)

- MSA 550: Predictive Analytics (Avg. Eval. 4.4/5.0) *Fall 2019*
- MGM 350: Intro. to Math. Modeling in Business (2 Sections) (Avg. Eval. 4.5/5.0)

- MSA 560: Optimization and Simulation Models (***Newly Developed***) *Spring 2019*
  (Avg. Eval. 4.45/5.0)
- MGM 350: Intro. to Math. Modeling in Business (2 Sections) (Avg. Eval. 4.4/5.0)

- MSA 550: Predictive Analytics (***Newly Developed***) (Avg. Eval. 4.4/5.0) *Fall 2018*
- MGM 350: Intro. to Math. Modeling in Business (2 Sections+ Online Section) (Avg. Eval. 4.2/5.0)

- MGM 350: Intro. to Math. Modeling in Business (3 Sections) (Avg. Eval. 4.4/5.0) *Spring 2018*

- MGM 350: Intro. to Math. Modeling in Business (2 Sections) (Avg. Eval. 4.2/5.0) *Fall 2017*
- MGM 445: Principles of Operations Management (Avg. Eval. 4.3/5.0)

Graduate Student Instructor	**North Carolina State University**

ISE 361: Deterministic Models in Industrial Engineering *Spring 2016*
In complete charge of preparation and delivery of lectures for a class of 56 undergraduate students.

Teaching Assistant	**North Carolina State University**

OR 706: Nonlinear Programming *Spring 2014*
Duties included discussion sessions, holding office hours, and grading for class of about 20 OR graduate students.

Teaching Assistant	**North Carolina State University**

OR 506: Algorithmic Methods in Nonlinear Programming *Fall 2013*
Duties included holding office hours, review sessions, and grading for class of about 25 OR/IE graduate students.

Invited Conference Presentations and Workshop Attendance

Conference Presentations/Invited Talks

1. Enayati S., Ozaltin O. Pandemic Influenza Vaccine Allocation with Equity, Fall seminar series at University of Michigan, Center for Healthcare Engineering and Patient Safety (CHEPS), Nov 2020.
2. Enayati S., Ozaltin O. Pandemic Influenza Vaccine Allocation with Equity, INFORMS Healthcare, 2019, Cambridge, MA.
3. Enayati S., Ansari S. Dynamic Policies to Control Opioid Epidemic in United States, INFORMS Healthcare, 2019, Cambridge, MA.
4. Enayati S., Ozaltin O., Mayorga M.E. Designing Ambulance Service Districts under Uncertainty, INFORMS Annual Meeting, 2017, Houston, TX.

5. Enayati S., Ozaltin O., Mayorga M.E. Two-Stage Stochastic Programming Model to Redeploy and Dispatch Ambulances with Restricted Workload, INFORMS Annual Meeting, 2016, Nashville, TN.
6. Enayati S., Mayorga M.E., Rajagopalan H.K., Saydam C. Real-time Ambulance Redeployment Model with Fair Workload for EMS Personnel, INFORMS Annual Meeting, 2015, Philadelphia, PA. Minority Issues Forum Poster Session.
7. Enayati S., Mayorga M.E., Rajagopalan H.K., Saydam C. Real-time Ambulance Redeployment Approach Considering Workload Restrictions for Emergency Medical Services Personnel, IIE Annual Conference, 2015, Nashville, TN.
8. Enayati S., Mayorga M.E., Ozaltin O. Optimization Model for Ambulance Redeployment with Fair Workload Consideration of EMS Providers, INFORMS Computing Society Conference, 2015, Richmond, VA.
9. Enayati S., Mayorga M.E., Ozaltin O. A Stochastic Programming Approach for Real-time Ambulance Redeployment with Restricted Workload, INFORMS Annual Meeting, 2014, San Francisco, CA.

Professional Development:

1. "Complex Systems Modeling and Networks" and "Computer Programming and Complex Systems", Summer Courses in Complexity, New England Complex Systems Institute, MIT, Summer 2014. (Certificates obtained)
2. Agent Based Modeling Boot-Camp for Health Researchers, NCSU, Instructor: Dr. Nathaniel Osgood (University of Saskatchewan), August 2014.
3. Preparing The Professoriate Fellowship Workshops, NCSU, 2015-2016.
   - Selective Topics: Effective Teaching with Technology, Course Design, Leading with Care: Recognizing and Responding to Emotional Distress in Others (Certificate Obtained)

Industry Experience

Operations Research Intern, *Norfolk Southern Corporation* **Summer 2016**
- Conducting Data Analysis and Developing a Prediction Model for the Daily Pattern of Empty Containers at Various Operating Stations
- Developing A Freight Railroad Crew Balancing Model Considering Integrated Train and Crew Operations
- Proposing A Time-Space Network Approach For the Crew Assignment Problem in Double-Ended Pools

Undergraduate Intern, *Zamyad Co.* **Summer 2008**

Awards/Honors and Service to Profession

Awards/Honors:

- NYS/UUP Professional Development Award, SUNY Plattsburgh, January 2020.
- Published IISE Transaction article selected to be featured in the Research section of the August issue of the Institute of Industrial and Systems Engineer's Industrial and Systems Engineer magazine, 2018.
- Honoree at Community Building Committee and the Cardinals Care Recognition Program at SUNY-Plattsburgh, December 2017.
- INFORMS Public Sector Operations Research Best Paper Competition Finalist, 2016.
- Semi-finalist in Data Incubator Fellowship at Cornell Tech, 2016.
- Awarded Preparing the Professoriate (PTP) Fellowship at North Carolina State University, 2015.
- Best Undergraduate Thesis Award at Iran University of Science and Technology, 2010.

Service to Community/Profession:

- Academic Adviser for the "Women in Leadership" club at SUNY Plattsburgh, Fall 2018–Present.
- Invited and served as a reviewer for academic articles submitted to peer-reviewed journals such as Transportation Science, Omega, Computer and Operations Research, and Socio-Economic Planning Sciences.

- Session Organizer for the "Joint Session HAS/MSOM-Health-Practice: Operations Management of Emergency Services I", INFORMS Annual Meeting, 2015.
- Committee Member, INFORMS Student Chapter, 2015.
- Committee Member, Industrial and Systems Engineering Graduate Student Association (ISEGSA), NCSU, 2014.

Computer Skills and Certificates

Programming Languages: Java, C++, Python, MATLAB

OR/Statistical/Simulation Software: R, GMPL, CPLEX, Minitab, Lingo, Simio, AnyLogic, Arena, SAS Studio

Database Management/Analytics Tools: Teradata SQL Assistant, MySQL, DBmaestro, Tableau, SAS Enterprise Miner

- *Data Mining and its Application in Industry Business,* Iran University of Science and Technology, 2009.
- *Application of Data Mining in Customer Relationship Management and Quality Management,* Iran University of Science and Technology, 2009.