Melika Jahan Beikloo

Ph.D. Candidate in Industrial Engineering, Clemson University, Clemson, SC

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Summary

Collaborative and goal-driven Ph.D. candidate with expertise in Operations Research, Simulation, Statistical modeling, and Data Analytics. Skilled in solving complex problems using Machine Learning, GIS, and ABM, with a proven track record of delivering actionable insights for public health and logistics applications. Experienced in collaborating across interdisciplinary teams to design and implement solutions.

Education

Clemson University
Ph.D. in Industrial Engineering, September 2022 – 2026 (Expected)
GPA: 3.91/4
Completed a Master's en route to my Ph.D., while simultaneously conducting research as a Graduate Research Assistant 2024.

University of Tehran, Tehran, Iran
Bachelor of Science in Industrial Engineering, September 2016 – September 2020
GPA: 3.71/4

Experience

Clemson University, Clemson, SC
Graduate Research Assistant, January 2024 – Present

- Conducted NSF-funded research on opioid epidemic interventions using ML, GIS, and ABM to analyze quantitative and qualitative data, providing actionable insights for public health.
- Applied statistical methods (regression, time series) to model opioid-related scenarios, contributing to cross-disciplinary reports, publications, and conference presentations.

Graduate Teaching Assistant, September 2022 – January 2024

- Assisted in teaching operations research courses, including optimization and stochastic modeling, supporting over 100 students in applying advanced analytical techniques to real-world problems.
- Provided academic support that resulted in 71% of students achieving scores above 90/100.

Posters and Presentations

Jahan Beikloo, M., Kurz, M. E., Miller, B. L., Sharkey, T., Kang, H., & Spence, C. (2024). *Assessing the Equitable Distribution of Naloxone Locations in South Carolina.* Oral presentation at the INFORMS 2024 Annual Meeting, Seattle, WA.

Jahan Beikloo, M., Spence, C., Kurz, M. E., Miller, B. L., & Sharkey, T. (2024). *Targeted Analysis of the Opioid Crisis Using GIS and ABM in a Specific Community.* Poster presented at the Southern Criminal Justice Association (SCJA) Conference, 2024, Greenville, SC.

Volunteer and Relevant Experience

President, INFORMS Student Chapter, Clemson University, August 2024 – Present

- Led chapter meetings, fostering collaboration across departments (Business, Math, Computer Science), and ensured alignment with mission objectives.
- Established partnerships with industry and academia, supporting member growth and collaboration with other student chapters and IISE.
- Coordinated interdisciplinary events, including a 50+ attendee welcoming event and practice sessions with 15-20 participants, exceeding engagement goals.

Industrial Engineering Representative at Graduate Student Advisory Board, January 2023 – Present

- Represent Industrial Engineering on GSAB, leading initiatives for 200+ students' well-being, inclusion, and diversity across departments.
- Proactively Advocate for student life improvements, evaluating travel grants and organizing cross-departmental events to boost engagement and student connections.
- Helped allocate $300 travel grants for graduate students based on academic merit and impact.

Course Project:

- **Route Optimization:** Designed a mixed-integer linear programming (MILP) model in Python to improve routes taken by Automated Guided Vehicles (AGVs).
- **Machine Learning for Predictive Analytics:** Implemented regression analysis and time series analysis in R to predict trends.

Skills

Hard Skills

- **Programming & Data Analysis:** Python, R, Optimization, Regression and Time Series Analysis, Agent-Based Modeling
- **Research Tools:** GIS, Statistical Methods, GitHub
- **Languages:** English (Fluent), Persian (Native)

Soft Skills

- **Leadership & Management:** Strategic Planning, Event Coordination, Team Management, Team Collaboration, Public Speaking, Decision-Making
- **Communication & Collaboration:** Mentoring, Networking, External Relations, Organizational Development
- **Problem-Solving:** Innovative Research, Analytical Thinking, Process Improvement, Product Design and Development, Benchmarking, Customer Requirements Identification, User Personas, Concept Generation/Selection/Refinement,

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Honors and Awards

- Awarded NSF Travel Support funding – Spring 2025
- Awarded funding by Graduate Travel Grant (GTG), Clemson University – Fall 2024
- Ranked in the top 0.4% (860,109 participants) in the Iran University Entrance Exam.
- Awarded for top student ranking by the Faculty of Engineering, University of Tehran, for academic excellence among a cohort of 50+ students.
- TOEFL: 109/120 (March 2021)
- GRE: Verbal Reasoning 157/170, Quantitative Reasoning 164/170, Analytical Writing 4.5/6 (October 2021)