YASIN FATEMI

Data Scientist

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EDUCATION

Ph.D. Industrial and Systems Eng.   Aug.2021 - Aug 2025
Auburn University, Auburn, AL, GPA=4

M.Sc. Data Science.   2023 - Aug 2025
Auburn University, Auburn, AL, GPA=4

M.Sc. Industrial and Systems Eng.   Aug. 2015 - 2017
Tarbiat Modares University, Tehran, Iran

B.Sc. Industrial and Systems Eng.   Aug. 2010 - 2014
University of Kurdistan, Sanandaj, Iran

Auburn University Graduate Level Courses

Statistical Learning, Machine Learning, Linear Programming & Network Flows, Integer & Nonlinear Programming, Database, Stochastic Optimization, Applied Multivariate Statistical Analysis.

Academic Skills

Machine Learning, Statistical Learning, Simulation, Linear And Non- Linear Optimization, Healthcare

Certifications

- Machine learning with Python, Online course, IBM Skills network
- Supervised machine learning: regression and classification, online course, Stanford University
- Pandas Essential Training, online course, Stanford University, LinkedIn Learning
- Social Network analysis, Online Course, University of California, Davis, Coursera
- Applied social network analysis in Python, online course, University of Michigan, Coursera
- SQL for Data Science, Coursera

Technical Skills

- **Data Analysis**: Python (pandas, NumPy, scikit-learn) , MySQL, SPSS IBM, R, Minitab
- **Simulation**: ARENA, Vensim
- **Optimization**: AMPL
- **Network analysis**: Python

EXPERIENCE AND RESEARCH

Graduate Assistantships   Aug. 2021 - Present
Auburn University, Auburn, AL

- **Investigating Frontline Nurse Stress: Perceptions of Job Demands, Organizational Support, and Social Support During the Current COVID-19 Pandemic**. This research aimed at using different statistical analyses (Correlation, ANOA, Regression, and Mediation) to find the relationship between the demographic variables, organizational support, social support, and stress. **Tools:** Excel, R, Minitab, and SPSS.
- **Machine Learning Approaches for Cardiovascular Death Prediction Among NASH Liver Transplant Recipients**. Using the UNOS dataset and applying machine learning algorithms, we could come up with the most important features that lead to cardiovascular death among NASH who had liver transplants. **Tools:** Python.
- **The Cost of Frontline Nursing: Investigating Perception of Compensation Inadequacy During the COVID-19 Pandemic**. The aim of the study was to test the mediation effects of supervisor and community support and coping strategies on the relationships between sources of stress and burnout on feelings of compensation inadequacy. This study found evidence of the mediation effect of coping strategies on the relationship between burnout and compensation. **Tools:** R, Minitab, Excel.
- **Simulation of neonatal intensive care unit: A case study**. This study aims to reduce infants' length of stay (LOS) and waiting times, bed occupancy, and costs associated with patient length of stay in one of the hospitals in Iran, by transferring newborn care from the hospital to the home using medical sensors. The results showed that with new scenarios the bed occupancy significantly decreased. **Tools:** ARENA, Excel.

Teaching Assistantships   Aug. 2021 - Present
Auburn University, Auburn, AL
Senior Project, Simulation, Probability and Statistics

PUBLICATIONS

- Ali, H.,**Fatemi, Y**., Ali, D., & Hamasha, M. (2022). Investigating Frontline Nurse Stress: Perceptions of Job Demands, Organizational Support, and Social Support During the Current COVID-19 Pandemic. Frontiers in Public Health, 10
- Ali, H.,**Fatemi, Y**, Cole, A., Tahat, S., & Ali, D. (2022). Listening to the Voice of the Hospitalized Child: Comparing Children's Experiences to Their Parents. Children, 9(12), 1820.
- Ali H,**Fatemi, Y**, Hamasha M, Modi S.The Cost of Frontline Nursing: Investigating Perception of Compensation Inadequacy During the COVID-19 Pandemic. Journal of Multidisciplinary Healthcare. In Press 2023.
- Ali, H., **Fatemi, Y**, Batchelor, M., Capodiferro, C., Marler, L., Hamasha, S. (2023). Evaluating a Hospital Smart Notification System in a Simulated Environment: The Method. (eds) HCI International 2023 Posters. HCII 2023. Communications in Computer and Information Science, vol 1833. Springer, Cham. https://doi.org/10.1007/978-3-031-35992-7.
- **Yasin. F.**, Samira. N., Oguz. T. (Under Review). Discrete Event Simulation of Applying Medical Sensors to Improve Hospital Resource Allocation: Case of Preterm Infants. Journal of Healthcare Management.
- **Yasin. F.**, Mohsen. N., Amir. O., Haneen., A., (Under Review). Bullying/victimization in academia: A systematic literature review. International Journal Environmental Research and Public Health.
- **Fatemi, Yasin.** and Nikfar, Mohsen and Oladazimi, Amir and Zheng, Jingyi and Hoy, Haley and Ali, Haneen, Machine Learning Approaches for Cardiovascular Death Prediction Among Nash Liver Transplant Recipients. Available at SSRN: https://ssrn.com/abstract=4605366 or http://dx.doi.org/10.2139/ssrn.4605366.