

Mehrdad Shoeibi

Department of Industrial Engineering and Management Systems,
University of Central Florida, Eng. II 321

Email: Me604598@ucf.edu

LinkedIn: [Profile](#)

Google Scholar: [Profile](#)

Summary

AI specialist with strong programming skills and experience in developing real-world AI products ([@SmartWAnDS App link](#)); researcher in industrial engineering, machine learning, and generative AI with expertise in healthcare, data analytics, and optimization.

Education

- **Doctor of Philosophy**, Industrial Engineering 2025 – Present
University of Central Florida (UCF)
- **Master of Science**, Information Technology (IT) 2023 – 2025
GPA: 3.80, Worcester Polytechnic Institute (WPI)
- **Master of Science**, Industrial Engineering 2018 – 2021
GPA: 3.41/4, Institute for Management and Planning Studies (IMPS)
- **Bachelor of Science**, Industrial Engineering 2010 – 2014
GPA: 3.11/4, Islamic Azad University (IAU)

Technical Skills

- **Languages:** Python
- **Software:** MS Project, Navisworks, Primavera, Vensim, Visio, Matlab
- **Technology:** Jupyter Notebook, Google Colaboratory, Tableau, Gitlab, Docker, Azure, Android Studio
- **Machine Learning:** Scikit-learn, PyTorch, Keras, Pandas, NumPy, Matplotlib
- **Courses:**
 - Machine Learning Methods for Biomedical Data
 - Database App Design and Development
 - Business Applications In Machine Learning
 - System Engineering
 - AI and its Business Applications
 - System Dynamics Modeling
 - Business Intelligence
 - Operations Research
 - Data Management For Analytics
 - Mathematical Programming
 - Pricing of Energy

Research Interests

- Generative AI in Healthcare
- Machine Learning and Deep Learning
- Operations Research and Optimization

Experience

Teaching Experience

- **Research Assistant for the SmartWAnDS Project** at Worcester Polytechnic Institute (WPI) Aug 2023 – 2025

- Conducting systematic reviews on generative AI applications in healthcare.
- Developing tools for chronic wound image annotation and classification.
- **Teaching Assistant for Game Theory** at the Institute for Management and Planning Studies (IMPS) Feb 2021 – Jun 2021
- **Teaching Assistant for Energy Pricing** at the Institute for Management and Planning Studies (IMPS) Feb 2019 – Jun 2019

Industry Experience

- **Project Control Manager** at Aalam Architectural & Structural Consultants Dec 2019 – Apr 2023
 - Management on BIM implementation.
 - Coordinating with all disciplines.
 - Cost estimation.
 - Process management and optimization.
- **Project Control Specialist** at Payasazeh Pasargad Jun 2018 – Dec 2019
 - Provided value engineering recommendations to achieve budget objectives.
 - Provided schedules and prepared project progress reports.
- **Project Control Engineer** at Aalam Architectural Structural Consultants Jan 2013 – Jul 2015

Publications

- Khatami, S. S., Shoeibi, M., Oskouei, A. E., Martín, D., & Dashliboroun, M. K. (2025). 5DGWO-GAN: A Novel Five-Dimensional Gray Wolf Optimizer for Generative Adversarial Network-Enabled Intrusion Detection in IoT Systems. *Computers, Materials & Continua*, 82(1), 881–911. [Link to Article](#)
- Nevisi, M. M. S., Shoeibi, M., Hernando-Gallego, F., Martín, D., & Khatami, S. S. (2025). An Evolutionary Deep Reinforcement Learning-Based Framework for Efficient Anomaly Detection in Smart Power Distribution Grids. *Energies*, 18(10), 2435. [Link to Article](#)
- Vaziri, A., Moghaddam, P. S., Shoeibi, M., & Kaveh, M. (2025). Energy-Efficient Secure Cell-Free Massive MIMO for Internet of Things: A Hybrid CNN-LSTM-Based Deep-Learning Approach. *Future Internet*, 17(4), 169. [Link to Article](#)
- Khatami, S. S., Shoeibi, M., Salehi, R., & Kaveh, M. (2025). Energy-Efficient and Secure Double RIS-Aided Wireless Sensor Networks: A QoS-Aware Fuzzy Deep Reinforcement Learning Approach. *Journal of Sensor and Actuator Networks*, 14(1), 18. [Link to Article](#)
- Shoeibi, M., Oskouei, A. E., & Kaveh, M. (2024). A Novel Six-Dimensional Chimp Optimization Algorithm for Reconfigurable Intelligent Surface-Assisted Energy Harvesting. *Future Internet*, 16(12), 460. [Link to Article](#)
- Shoeibi, M., Nevisi, M. M. S., Khatami, S. S., Martín, D., Soltani, S., & Aghakhani, S. (2024). Improved IChOA-Based Reinforcement Learning for Secrecy Rate Optimization in Smart Grid Communications. *Computers, Materials & Continua*, 81(2). [Link to Article](#)
- Shoeibi, M., Nevisi, M. M. S., Salehi, R., Martín, D., Halimi, Z., & Baniasadi, S. (2024). Enhancing Hyper-Spectral Image Classification with Reinforcement Learning and Advanced Multi-Objective Binary Grey Wolf Optimization. *Computers, Materials & Continua*, 79(3). [Link to Article](#)
- Shoeibi, M., Tulu, B., & Agu, E. O. (2024). Utilizing Generative AI for the Production, Classification, and Annotation of Chronic Wound Images: A Systematic Review. *AMCIS 2024 TREOs*, 193. [Link to Article](#)
- Shoeibi, M., & Baghbadorani, P. R. (2023). Moving toward resiliency in health supply chain. *International Journal of Industrial Engineering and Operational Research*, 5(3), 63–74. [Link to Article](#)

Awards and Honors

- | | |
|---|------|
| – Received full doctoral fellowship from the University of Central Florida (UCF) | 2025 |
| – Received a full scholarship for a Master of Science in Information Technology at Worcester Polytechnic Institute (WPI) | 2023 |
| – Received full scholarship for Master’s Study at Institute for Management and Planning Studies (IMPS) | 2019 |
| – Ranked within the top 1% among more than 20,000 participants in the Iranian University Entrance Exam for Master’s program | 2018 |