Ahmad Salehiyan

Oklahoma State, US

+1 450 269 3549 | Ahamd.Salehiyan@okstate.edu | www.ASalehiyan.com | Ahmad-salehiyan

Education

Oklahoma State University — *Oklahoma, USA*

Doctor of Philosophy (PhD) in Industrial Engineering — *Expected 2028*

- Research Focus: Maintenance planning, partially observed Markov decision process (POMDP), and control limit policy
- Advisor: Dr. Akash Deep

K. N. Toosi University of Technology — *Tehran, Iran*

Master of Science in Industrial Engineering — *2019-2022*

- Thesis: "Predictive Maintenance of Advanced Industrial Machines by using AI Techniques"
- Advisor: Dr. Abdollah Aghaie

Islamic Azad University — *Qazvin, Iran*

Bachelor of Science in Industrial Engineering — *2014-2019*

- Thesis: "Feasibility Study Industrial Company Manufacturing of Carbonless Paper"

Research Interests

Reliability Engineering

Stochastic Control

Decision Making

Data Science

Publications

Journal Articles

- *POMDP-based optimal maintenance planning using multiple sensor signals.* Submitted to IEEE Transactions, 2024.

Conferences

- *Prioritizing Equipment Maintenance Programs by Clustering Algorithms.* Presented at the 14th International Conference of Iranian Operations Research Society.
- *Disease Cluster Analysis in Electronic Health Records: Insights into Mortality and Comorbidity Patterns.* To be presented at the IISE Annual Conference & Expo, 2025.

Presentations

- **Poster Presentation:** "POMDP-based Optimal Maintenance Planning Using Multiple Sensor Signals" — *Student Research Symposium, Oklahoma State University, Stillwater, OK, 2024*.
- **Presentation:** "A Scalable Algorithm for Condition-Based Maintenance with High-dimensional Sensor Data" — *INFORMS Annual Conference, Houston, TX, 2024*
- **Scheduled Presentation:** "A Scalable Algorithm for Condition-Based Maintenance with High-dimensional Sensor Data" — *Reliability and Maintainability Symposium (RAMS), Hilton Sandestin Beach Resort, Miramar Beach, FL, USA, 2025*
- **Scheduled Presentation:** "Disease Cluster Analysis in Electronic Health Records: Insights into Mortality and Comorbidity Patterns" — *IISE Annual Conference & Expo, Atlanta, GA, 2025*

Work Experience

Oklahoma State University *Aug. 2020 - Present*
Research Assistant *PhD Student*

- Conducting research on maintenance planning, partially observed Markov decision process (POMDP), and control limit policy
- Assisting in data analysis and interpretation.
- Contributing to the development of academic publications and presentations.

K. N. Toosi University of Technology *Oct. 2018 - Apr. 2020*
Research Assistant *Master's Student*

- Supported faculty members in research projects related to data mining techniques and machine fault detection.
- Presented research findings at departmental seminars or conferences.
- Collaborating with industry to apply academic knowledge in identifying and resolving machinery faults in real-world settings.

Karin Crane Company *Apr. 2019 - Oct. 2019*
Industrial Engineer

- Managed project coordination and leadership responsibilities.
- Developed and implemented quality control measures, ensuring adherence to product standards.
- Designed and documented operational process charts to improve workflow efficiency.

Academic Projects

Utilizing Data Mining Techniques and Similar Tools for Early Detection of Machine Faults *Mar. 2022 - Oct. 2022*
Farandish Company
- Advised by Abdollah Aghaie.

Optimization of Paint Coating Process on Galvanized Sheet Using Design and Analysis of Experiments *Feb. 2020 - Jun. 2020*
Aabsal Company
- Project title: "Optimization of Paint Coating Process on Galvanized Sheet Using Design and Analysis of Experiments."

Feasibility Study Industrial Company Manufacturing of Carbonless Paper *Feb. 2019 - Jun. 2019*
Carbonless Form Company
- Project title: "Feasibility Study Industrial Company Manufacturing of Carbonless Paper."

Professional Memberships

IEEE Reliability Society — Member since 2022
INFORMS — Member since 2023

Skills

Programming languages SPSS, Python, R, Julia, GAMS, PostgreSQL, SAS, Power BI, COMFAR, Tableau
Certifications ISO9001:2015, ISO22000

Achievements

2024 **3rd Place**, Student Research Symposium - POMDP-based Optimal Maintenance Planning Using Multiple Sensor Signals *Stillwater, OK*
2021 **Ranked 9th,** Among Systems Optimization M.Sc. students *Tehran*
2017 **Ranked 4th,** Among Industrial Engineering B.Sc. students *Gazvin*

Languages

Persian Native or bilingual proficiency
English Full professional proficiency