



Contact:

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Top Skills:

- Python
- GAMS
- Power BI
- Excel

Research Interests:

- Optimization
- Maintenance
- Machine Learning
- Scheduling

Honors and Awards:

- Ranked 9th among Systems Optimization M.Sc. students⁽²⁰²¹⁾
- Ranked 4th among Industrial Engineering B.Sc. Students⁽²⁰¹⁷⁾

Ahmad Salehiyan

Education

• K. N. Toosi University of Technology

Master of Science in Industrial Engineering-Systems Optimization (2019-2022)
Supervisor: Abdollah Aghaie
Thesis: "Predictive Maintenance of Advanced Industrial Machines using Artificial Intelligence Techniques."
Overall GPA: 3.42/4.00 (16.53/20) | Major courses GPA: 3.50/4.00
Selected Courses:
Design of experiments (18.85/20) Integer Variables (18.75/20)

• Islamic Azad University, Qazvin Branch

Bachelor of Science in Industrial Engineering (2014-2018)
Thesis: "Feasibility Study Industrial Company Manufacturing of Carbonless Paper."
Overall GPA: 3.52/4.00 (17.06/20) | Major courses GPA: 3.65/4.00
Selected Courses:

Computer Programming (19.25/20)	Operations Research I (17.50/20)
Engineering statistics (17/20)	Operations Research II (19/20)
Maintenance Planning (20/20)	Principles of Simulation (20/20)

Publication

- **Salehiyan, A.**, Aghaei, A., Amouei, A. (2022). Discover Hidden Relationships and Patterns in Failure of Computer Numerical Control Equipment by Using Apriori Algorithm. The 3rd International Conference on Challenges and New Solutions in Industrial Engineering, Management and Accounting. [Accepted]
- Aghaei, A., **Salehiyan, A.** (2021). Prioritizing Equipment Maintenance Programs by Clustering Algorithms the 14th International Conference of Iranian Operations Research Society.
- **Salehiyan, A.**, Aghaei, A., Mohammadi, Z. (2022). Implementation of Predictive Maintenance by Using LSTM and GRU Artificial Neural Networks, and Mathematical Cost Model. [Submitted]
- **Salehiyan, A.**, Aghaei, A., Mohammadi, Z., "Development of Fault Diagnosis Models Based on Predicting Vibration Signals of a Computer Numerical Control Machine." [Under Publication]

Language Skills

- IELTS Overall: 6.5 (listening: 7 | reading: 6.5 | writing: 6 | speaking: 6) **Oct.2022**
- Persian—Native or bilingual proficiency

Teaching and Research Experience

- **K. N. Toosi University of Technology** Oct.2021 – Present
Teacher and Research Assistant (Dr. Abdollah Aghaie)
- **Teaching Microsoft Excel** Sep.2019 - Oct.2022
A personal tutor of one of the employees in a private company

Work Experience

- **Karin Crane Company** Sep. 2019 - Oct.2019
Being Project Manager, and improving workflow creating Quality Control Inspection Forms, and Operation Process Charts
- **Turbine Engineering and Manufacturing Company (TUGA)** Oct. 2017-Sep. 2018
Analyzing maintenance dataset by implementing data mining techniques, and doing benchmarking to improve business processes by observing what other companies do.

Certificates and Skills

Certifications:

Weka
Minitab
COMFAR
Excel (Advance)
LATEX
ISO9001:2015
Microsoft Project

Programming languages:

Python
R
JavaScript
jQuery
HTML
CSS

Computer-aided engineering:

GAMS
PostgreSQL
Power BI
Tableau
AutoCAD
SOLIDWORKS
Statistical Package for the Social Sciences (SPSS)

Projects

- **Turbine Engineering and Manufacturing Company (TUGA)** Oct. 2021 – Oct. 2022
Advisor: Dr. Abdollah Aghaie
Project Title: "Early Fault Detection of Five-axis Numerical Control Tool Machine Based on Data mining Approaches and Similar Tools."
- **Absal Company** Feb. 2020 -Jun 2020
Project Title: "Optimization of Paint Coating Process on Galvanized Sheet Using Design and Analysis of Experiments."
- **Carbonless Manufacture Company** Feb. 2019 -Jun 2019
Project Title: "Feasibility Study Industrial Company Manufacturing of Carbonless Paper. "

References

Dr. Abdollah Aghaie

Full Professor, Industrial Engineering Department, K. N. Toosi University of Technology, Iran.

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Dr. Yaser Samimi

Assistant Professor, Industrial Engineering Department, K. N. Toosi University of Technology, Iran.

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Dr. Emad Roghanian

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