

SEYYED SOROUSH MIRZAEI

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SUMMARY

A highly motivated and technically proficient graduate of Mechanical Engineering with advanced academic training and hands-on experience in Artificial Intelligence (AI), Machine Learning (ML), and Data Science. I possess a strong ability to analyze complex data sets and extract actionable insights to drive informed decision-making. With exceptional skills in implementing AI algorithms, including Artificial Neural Networks and ML techniques, I am adept at solving intricate problems that require precision and intelligent decision-making. I am deeply passionate about expanding my knowledge and contributing to the field by refining methodologies to achieve superior and more accurate results through cutting-edge AI and ML approaches.

EXPERIENCE

Artificial Intelligence And Data Science Researcher

Sun Air Research Institute / Ferdowsi University of Mashhad – Mashhad, Iran **September 2023 – Present**

- Engaged in advanced research focusing on the application of machine learning and deep learning models to solve complex engineering problems.
- Developed and implemented novel algorithms for data analysis and simulation, contributing to institutional research goals.
- Collaborated with academic and research peers to publish findings in reputable scientific journals.

EDUCATION

M.Sc. in Mechanical Engineering (Energy Conversion)

Ferdowsi University of Mashhad – Mashhad, Iran

Sep 2019 – Sep 2023

GPA: 17.23 / 20

B.Sc. in Mechanical Engineering

Birjand University – Birjand, Iran

Sep 2014 – Sep 2019

GPA: 15.81 / 20

PUBLICATIONS

Utilizing Machine Learning Methods To Simulate The Fast Filling Process In CNG Stations

International Journal of Engine Research

September 2023

This research introduces a novel approach using machine learning and artificial neural networks (ANNs) to determine thermodynamic properties and simulate the vehicle tank filling process. ANN models replace traditional methods, offering faster simulations with minimal computational power. Validation is performed by comparing the results with the AGA8 and GERG-2008 equations of state, demonstrating the efficiency of the ANN models in simulating rapid CNG refueling.

TECHNICAL SKILLS

Programming:	Python (Core Concepts, Concurrency), NumPy, Pandas
Machine Learning:	Scikit-Learn, TensorFlow, Keras, Model Selection & Evaluation, Hyperparameter Tuning, Pipeline Integration
Computer Vision:	OpenCV, Image & Video Processing, Feature Detection, Object Recognition
Data Visualization:	Matplotlib, Seaborn, Advanced Statistical & Categorical Plots
Data Engineering:	Data Preprocessing, Feature Engineering, Data Manipulation & Transformation

CERTIFICATIONS

- **DeepLearning TensorFlow Developer Professional Certificate**, Coursera – *July 2023*
- **Advanced Computer Vision with TensorFlow**, Coursera – *September 2022*
- **Custom and Distributed Training with TensorFlow**, Coursera – *August 2022*
- **Custom Models, Layers, and Loss Functions with TensorFlow**, Coursera – *July 2022*
- **Convolutional Neural Networks in TensorFlow**, Coursera – *June 2022*
- **Natural Language Processing in TensorFlow**, Coursera – *June 2022*

LANGUAGES

Persian (Native) **English** (Advanced) **German** (Intermediate)

INTERESTS

Programming and Artificial Intelligence | Machine Learning and Deep Learning | Prompt Engineering & Generative AI