

Shahrzad Shashaani

📍 Tehran, Iran ✉ shahrzad.shashaani@gmail.com 🏠 Shahrzad Shashaani





🔗 <https://shahrzad-sh.github.io/Shahrzad-Shashaani.github.io/> 🌐 <https://github.com/Shahrzad-sh>

Research Interests

I am an enthusiastic and motivated computer scientist who contributes to Artificial Intelligence, Machine Learning, and Deep Learning projects. Experienced and proficient in various programming languages and frameworks relevant to Machine Learning and Deep Learning.

My research interests include Machine Learning, Deep Learning, and Computer Vision in Robotics and Health with supervised and self-supervised learning methods.







Education

- | | |
|-------------------|---|
| 09/2020 – 02/2023 | Master of Science in Artificial Intelligence
<i>K. N. Toosi University of Technology, Tehran, Iran</i> 
GPA: 4/4 (18.95/20)
Thesis Title: Using Convolutional Neural Networks for Off-road Path Detection in Self-driving Cars
Supervisor: Prof. Dr. Mohammad Teshnehlab  |
| 09/2016 – 09/2020 | Bachelor of Science in Computer Engineering
<i>K. N. Toosi University of Technology, Tehran, Iran</i> 
GPA: 3.89/4 (18.53/20)
Thesis Title: Hospital Data Analysis Using Nonlinear Regression and Fuzzy Neural Networks
Supervisor: Prof. Dr. Mohammad Teshnehlab  |

Publications

- S. Shashaani**, M. Teshnehlab, A. Khodadadian, T. Wick, and N. Nohi. "Using layer-wise training for Road Semantic Segmentation in Autonomous Cars." *IEEE ACCESS* (2023), DOI: 10.1109/ACCESS.2023.3255988. 
- S. Lotfi, M. Modirrousta, **S. Shashaani**, M. Aliyari Shoorehdeli, M. Gheisari, Y. Liu, and Y. Wang. "Network intrusion detection with limited labeled data." Submitted to *International Journal of Intelligent Systems*. 
- S. Mehralian, E. Jalaeian Zaferani, **S. Shashaani**, F. Kashefinishabouri, M. Teshnehlab, H. Ali Sokhandan, Z. Dibaji Forooshani, B. Montazer, Z. Joneidi, and M. Vafapeyvand. "Rapid COVID-19 Screening Based on the Blood Test using Artificial Intelligence Methods." *Journal of Control* 14, no. 5 (2021): 131-140. 

Teaching Experience

- | | |
|-----------------------------|---|
| 2023
Tehran, Iran | Teaching Assistant
<i>Deep Learning</i>
Artificial Intelligence Department, K. N. Toosi University of Technology 
Lecturer: Prof. Mohammad Teshnehlab  |
| 2022 – 2023
Tehran, Iran | Teaching Assistant
<i>Neural Networks</i>
Artificial Intelligence Department, K. N. Toosi University of Technology 
Lecturer: Prof. Mohammad Teshnehlab  |
| 2022
Tehran, Iran | Teaching Assistant
<i>Deep Learning</i>
Artificial Intelligence Department, K. N. Toosi University of Technology 
Lecturer: Prof. Mohammad Teshnehlab  |

2021 – 2022
Tehran, Iran

Teaching Assistant

Neural Networks

Artificial Intelligence Department, K. N. Toosi University of Technology [↗](#)

Lecturer: Prof. Mohammad Teshnehlab [↗](#)

2019 – 2020
Tehran, Iran

Teaching Assistant

Algorithm Design

Computer Engineering Department, K. N. Toosi University of Technology [↗](#)

Lecturer: Dr. Amin Nikanjam [↗](#)

Professional Experience

01/2019 – 02/2023
Tehran, Iran

Research Assistant

K. N. Toosi ISLAB(Intelligent Systems Laboratory)

Main Experience

- Worked as a member of the COVID-19 diagnosis project
- Worked as a member of the path detection project

Reference: Prof. Mohammad Teshnehlab [↗](#)

12/2021 – 06/2022
Tehran, Iran

Part-time Developer

TelC International Communication Company [↗](#)

Main Experience

- Developing some parts of an existing database using MySQL
- Finding and extracting useful information from registered records
- Developing a simple recommender system for defined customer care app using Python

09/2020 – 12/2021
Tehran, Iran

Team Member of SR2119 Social Robot Developing Project

AICell Startup [↗](#)

Main Experience

- Machine Vision
 - Face Detection and Recognition
 - Face Tracking
 - Age-Gender Estimation

Catalog Link: SR2119 Robot [↗](#)

Reference: Mr. Sajjad Amini [s_amini@sharif.edu]

06/2019 – 09/2019
Tehran, Iran

Internship

Assessment of Electronic Health Record System of Iran Health Organization, Iran
Telecommunication Research Center(ITRC) [↗](#)

Main Experience

- Testing Electronic Health Record System (SEPAS)
- Developing Record Comparator Tool with Python

Reference: Mr. Mohammad Azadnia [azadnia@itrc.ac.ir]

06/2018 – 09/2018
Tehran, Iran

Part-time Developer

Android Application, Arena Group

Main Experience

- Developing Android Program for Students Curriculum Management

Download Link: Sakoo App [↗](#)

Selected Passed Courses

MSc

- Machine Learning (4/4)
- Deep Learning (4/4)
- Machine Vision (4/4)
- Evolutionary Computing (4/4)

- Multi-agent Systems (4/4)
- Pattern Recognition (3/4)

BSc

- Foundations of Computer Vision (4/4)
- Graph Theory and Algorithms (4/4)
- Embedded and Real-Time Systems (4/4)
- Data Structure (4/4)
- Database (4/4)
- Algorithm Design (3/4)
- Artificial Intelligence and Expert Systems (3/4)

Honors and Awards

2020 – 2022	Ranked 1st (out of ~25 Students) MSc Degree, Artificial Intelligence Department, K. N. Toosi University of Technology
2020	Entering the M.Sc. Degree Directly without Participating in Entrance Exam K. N. Toosi University of Technology
2018 – 2020	Included in Dean's List for 3 Semesters K. N. Toosi University of Technology
2017 – 2020	Received Excellent Students Scholarship, Kanoon Farhangi Amoozesh K. N. Toosi University of Technology
2016 – 2020	Ranked 3rd (Out of ~53 Students) BSc Degree, Computer Engineering Department, K. N. Toosi University of Technology
2016	Ranked within the top 1% of Iranian University Entrance Exam for Bachelor's Degree

Participated Projects

2020 – 2022	Using Convolutional Neural Networks for Off-road Path Detection in Self-driving Cars <i>The Master's Thesis</i>
2021	Edeg detection using PiDiNet <i>Final project of Machine Vision</i>
2020	Hospital Data Analysis Using Nonlinear Regression and Fuzzy Neural Networks <i>The Bachelor's Thesis</i>
2020	Persian-Handwriting-Recognition tool for a specific type of form <i>Final project of Computer Vision course</i>

Skills

Deep Learning Libraries and Frameworks

Pytorch / TensorFlow / Keras

Programming Languages and Tools

Python / MATLAB / Weka / C / C++ / Java

Computer Engineering

Git / Linux / Agile Development

Machine Learning Libraries and Frameworks

scikit-learn / OpenCV / Dlib / mediapipe

Other Libraries and Frameworks

Numpy / Pandas / Matplotlib

Database

MySQL / Microsoft SQL Server

Languages

English

Proficient Speaker

IELTS: 7.5 (Speaking:7 | Listening:7.5 |

Reading:8.5 | Writing:6.5)

Persian

Native Speaker

References

Prof. Mohammad Teshnehlab, K. N. Toosi University of Technology, Tehran, Iran
teshnehlab@eetd.kntu.ac.ir, (+98)-021-84062323

Prof. Amirreza Khodadadian, Keele University, Newcastle, United Kingdom
khodadadian@ifam.uni-hannover.de, (+49)-511-762-8948

Prof. Babak Nasersharif, K. N. Toosi University of Technology
bnasersharif@kntu.ac.ir, (+98)-021-84062268

Prof. Saeed Farzi, K. N. Toosi University of Technology
saeedfarzi@kntu.ac.ir, (+98)-21-84062-414

Interests

Working out, Drawing, Watching movies and TV series, Listening to music or podcast