Shahrzad Shashaani

Vienna, Austria shahrzad.shashaani@gmail.com Shahrzad Shashaani

https://shahrzad-sh.github.io/Shahrzad-Shashaani.github.io/ https://github.com/Shahrzad-sh

Profile

I am a motivated computer scientist, who has experience in various Machine Learning and Deep Learning tasks. Based on different academic and professional projects, I gained valuable knowledge and experience in using different programming languages and useful frameworks that are essential for my interest domains.
My specific research interests are Computer Vision and Recommender Systems, which my goal is to improve the results and add explainability to the employed Neural Networks. Therefore, I am interested in contributing to various kinds of projects in the fast-growing Artificial Intelligence field.

Education

03/2024 – present
Vienna, Austria

PhD in Computer Science
Technische Universität Wien
Thesis (initial) Title: Explainability in Music Recommender Systems
Supervisor: Peter Knees

09/2020 – 02/2023
Tehran, Iran

Master of Science in Artificial Intelligence
K. N. Toosi University of Technology
GPA: 4/4 (18.95/20), *First-Class Honours*
Thesis Title: Using Convolutional Neural Networks for Off-road Path Detection in Self-driving Cars
Supervisor: Mohammad Teshnehlab

09/2016 – 09/2020
Tehran, Iran

Bachelor of Science in Computer Engineering
K. N. Toosi University of Technology
GPA: 3.89/4 (18.53/20), *Distinction*
Thesis Title: Hospital Data Analysis Using Nonlinear Regression and Fuzzy Neural Networks
Supervisor: Mohammad Teshnehlab

Publications

S. Shashaani, M. Teshnehlab, A. Khodadadian, T. Wick, and N. Noii. "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. "Network Intrusion Detection with Limited Labeled Data Using Self-supervision." *arXiv preprint arXiv:2209.03147. (2022)*.

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

2021 – 2023

Teaching Assistant
Neural Networks and Deep Learning, Artificial Intelligence Department, K. N. Toosi University of Technology

Lecturer: Mohammad Teshnehlab

Professional Experience

10/2023 – present
Vienna, Austria

Project Assistant
FWF Project, Technische Universität Wien
Main Experience
- Learning different types of Recommender Systems
- Researching different concepts of Explainability
- Using Spotify Dataset and searching for other available Music Datasets that are suitable for Recommender Systems and Explainability
- Developing a Deep Learning Model with high recommendation performance and trying to generate meaningful explanations for the given recommendation

Reference: Peter Knees

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: 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: 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: Mohammad Azadnia [azadnia@itrc.ac.it]

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

Skills

Deep Learning Libraries and Frameworks
Pytorch/ TensorFlow/ Keras

Machine Learning Libraries and Frameworks
scikit-learn / OpenCV / Dlib / mediapipe

Programming Languages and Tools
Python / MATLAB / Weka / C++

Other Libraries and Frameworks
Numpy / Pandas / Matplotlib