Sepehr Seifi Zarei

Turku, Finland
+358 (41) 4736098
seify.sepehr@gmail.com
Sepehr Seify
Sepehr Seify Zarei
Sepehr.Seify.Zarei

Born 16 Aug 1996

Education

2022 – Present

Doctor of Philosophy in Health Technology

University of Turku (UTU) — **Turku , Finland**

World University Rankings: 291

Supervisor: Prof. Pasi Liljeberg

2018 – 2022

Master of Science in Biomedical Engineering - Bioelectric

Iran University of Science and Technology (IUST) — **Tehran , Iran**

World University Rankings: 372 **Iran University Rankings : 4**

GPA: 4/4 - 17.42/20

Thesis: Despeckling medical ultrasound images using Deep Learning
Supervisor: Dr. Hamid Behnam

2013 – 2018

Bachelor of Science in Electrical Engineering - Electronics

Bu-Ali Sina University (BASU) — **Hamedan , Iran**

GPA: 3.5/4 - 16.5/20

Thesis: Application of FibroScan® device in liver diseases
Supervisor: Dr. Soheil Ganjefar

Research Interest

1. (Medical) Signal Processing
2. (Medical) Image Processing
3. Machine Learning
4. Deep Learning

Awards and Honors

- Received national graduate and undergraduate full scholarship
- Ranked within top 5% among more than 40,000 participants in Iranian university entrance exam for Master's degree
- Ranked within top 1% among more than 222,000 participants in Iranian university entrance exam for Bachelor's degree
- 2nd Rank in Handball national universities competitions - 2018

Publications

In preparation

- **S. Seify Zarei**, H. Behnam "**Despeckling of medical ultrasound images using Deep Learning**.", Target Journal: Ultrasonics

Selected Courses and Projects

Graduate

Statistical Pattern Recognition (GPA: 4/4 - 18.65/20)

- Under supervision of Prof. Mohammadreza Daliri
- **Final Project:** ECG arrhythmia classification using a 2D convolutional neural network
- Implementing a deep two-dimensional convolutional neural network (CNN) for Electrocardiogram (ECG) arrhythmia classification in MATLAB environment

Medical Image Processing (GPA: 4/4 - 16.1/20)

- Under supervision of Prof. Aboozar Ghaffari
- **Final Project:** A Hierarchical Image Matting Model for Blood Vessel Segmentation in Fundus Images
- Extracting blood vessels from fundus images using a hierarchical image matting model in MATLAB environment

Ultrasound in Biomedical Engineering (GPA: 4/4 - 16/20)

Brain-Computer Interface Systems (GPA: 4/4 - 17.6/20)

Undergraduate

Linear Control, Digital Control, Electronic circuit

Online Courses

Linkedin Learning

Course: Robot Framework Test Automation: Level 1 2, **Taught by:** Bryan Lamb **Course:** API Test Automation with SoapUI, **Taught by:** Dave Westerveld **Course:** Robot Framework Test Automation: Jenkins CI and Git Version Control, **Taught by:** Bryan Lamb **Course:** Robot Framework Test Automation: Sauce Labs, **Taught by:** Bryan Lamb

COURSERA

Course: Neural Networks and Deep Learning, **Taught by:** Andrew Ng, Instructor, by Deeplearning.io

Robotech Academy

Course: Deep Learning for Computer Vision, **Main skills covered:** Object Detection, OpenCV, Google Colab, Neural Networks

Work Experience

Project Researcher

- **Moore4Medical: AFib detection using Bed sensors, 2022-Present, University of Turku**

Apprenticeship

- ECG Signal Acquisition and Processing with LabChart Software, Winter 2019-2020, Iran University of Science and Technology

Internship

- Electric-motors repairing and wiring, 2015-2016, Hamedan Technical Electric

Skills

- **Programming Language and AI Framework:** Python, Tensorflow, PyTorch
- **Software:** MATLAB, Code Vision AVR, Proteus Design Suite, Microsft Office, Altium, AutoCAD
- **Markup Language:** LaTeX

Language Proficiency

Persian: Native

English: Fluent

Voluntary work

- Member of Hamedan Animals Rescue Non-governmental Organization, Hamedan, 2018-Present

Hobbies and Interests

Sport

- Cycling
- Handball
- Ping-Pong

Music

- Piano
- African Drum