

# Seyed Soroush Hosseini Naghavi

SCIENCE AND RESEARCH BRANCH OF IAU · DEPARTMENT OF COMPUTER ENGINEERING

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## EDUCATION

### Science and Research Branch IAU

Tehran, Iran

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING | GPA: 16.04/20 VIA 129 UNITS

Sept. 2019 - Present

- MGPA: 17.5/20 via 78 units
- Related courses:
  - Advanced Topics 01 - Neural Networks: 20/20
  - AI and Expert Systems: 18/20
  - Algorithm Design: 17/20

## TEACHING EXPERIENCE

### Advanced Topics 01 - Deep Learning & Neural Networks

SRBIAU, Tehran, Iran

TEACHING ASSISTANT | INSTRUCTOR: FARSAD ZAMANI BOROUJENI | (SCHOLAR)

Jan. 2023 - Jun. 2023

- Subjects taught: Design and Implementation of Neural Networks | Hands on experience with Tensorflow/Keras | Theory and basics of linear algebra and mathematics in Neural Networks

### Digital Systems Design

SRBIAU, Tehran, Iran

TEACHING ASSISTANT | INSTRUCTOR: MAHDI BAGHERIZADEH | (SCHOLAR)

Jan. 2023 - Jun. 2023

- Subjects taught: Theory and basics of FPGA, VLSI, PLD/CPLD | Designing basic circuits with different topologies

### Python/Tensorflow Workshop

SRBIAU, Tehran, Iran

TEACHING ASSISTANT | INSTRUCTOR: HAMIDREZA BOLHASANI | (SCHOLAR)

Sept. 2022 - Dec. 2022

- Subjects taught: Theory of Machine Learning/Deep Learning | modeling Neural Networks with SKLearn/Tensorflow

### Robotics, Programming & Electronics

Kavosh Creativity House, Tehran,  
Iran

TEACHER / TEACHING ASSISTANT

May 2019 - Dec. 2021

- Subjects taughts: Programming AVR Microchips with C | AVR Microchip simulation with Proteus Circuit Simulator | Basics of Electronics & Soldering

## ACADEMIC & RESEARCH PROJECTS

### Object Space Tracking | Genzel Lab, Donders Institute for Brain, Cognition And behaviour

RU, Nijmegen, The Netherlands

RESEARCH INTERN | INSTRUCTOR: ABDELRAHMAN RAYAN (RESEARCHGATE) | LISA GENZEL (SCHOLAR)

Summer 2023

- Tracking Rodents with DEEPLABCUT, a software package for animal pose estimation
- Data synchronization with rodents' LFP signals recorded with EEG;

### Handwriting Recognition in the medical industry (Prescription Recognition)

SRBIAU, Tehran, Iran

RESEARCH ASSISTANT | INSTRUCTOR: AZADEH ZAMANIFAR (SCHOLAR)

Summer 2022

- Model review; Easter 2.0, Improving Convolutional models for Handwritten text recognition - Kartik Chaudhary
- Implementing a model in PyTorch framework; Easter 2.0

## PUBLICATIONS

2023	<b>Hosseini Naghavi SS, Moosavi SR, Bolhasani H.</b> , An optimized neural network for real-time Endoscopy/Colonoscopy image segmentation.	<i>In preparation</i>
2023	<b>Moosavi SR, Hosseini Naghavi SS, Bolhasani H.</b> , Artificial Neural Network for colorectal cancer grading using histopathologic images.	<i>In preparation</i>
2023	<b>Zoghi AH, Mosalli A, Hosseini Naghavi SS, Golaghaei A.</b> , A deep learning method for land subsidence prediction.	<i>In preparation</i>

## WORK EXPERIENCE

### National Robocup Committee of Iran

*Tehran, Iran*

TECHNICAL COMMITTEE & MEMBER

*Jun. 2017 - Present*

- Participated in International Robocup Competitions 2017 Japan and 2018 Canada as Kavosh Team and IRNC member
- Cooperated as Organizing Committee in the Asia-Pacific Robocup 2018, and IranOpen Robocup 2020, 2022, and 2023
- assigned as Technical committee/Referee for the Self-Driving cars League in the IranOpen Robocup 2022, and 2023

### Ariaz Balan Servat

*Tehran, Iran*

IT SPECIALIST & GRAPHIC DESIGNER

*Feb. 2021 - May 2021*

- Managed office devices and computers and content creation for various social medias, Posters and Flyers

### Kavosh Creativity House

*Tehran, Iran*

SHAREHOLDER, TEACHER & GRAPHIC DESIGNER

*May 2019 - Dec. 2021*

- Taught C Programming language, Electronics and soldering at various schools/high-schools
- Designed Flyers, Posters, Social media content etc.

### Kavosh Robotics Team

*Tehran, Iran*

TEAM MEMBER & PROGRAMMER

*Sept. 2016 - Mar. 2019*

- Developed algorithms and software for an autonomous pathfinder rescue robot
- Implemented Various Software/Hardware methods to rescue victims using the robot

## HONORS & AWARDS

2023	<b>Technical Committee</b> , Self-Driving Cars, National Robotics Competition, RoboCup Open	<i>Tehran, Iran</i>
2022	<b>Technical Committee</b> , Self-Driving Cars, National Robotics Competition, RoboCup Open	<i>Tehran, Iran</i>
2018	<b>1st Place</b> , International Robotics Competition, Robocup	<i>Montreal, Canada</i>
2017	<b>1st Place</b> , International Robotics Competition, Robocup	<i>Nagoya, Japan</i>
2018	<b>1st Place</b> , International Robotics Competition, Robocup Asia-Pacific	<i>Kish Island, Iran</i>
2018	<b>1rd Place</b> , National Robotics Competition, Robocup Open	<i>Tehran, Iran</i>
2017	<b>1rd Place</b> , National Robotics Competition, Robocup Open	<i>Tehran, Iran</i>
2016	<b>1rd Place</b> , National Robotics Competition, AUTCup Amirkabir University	<i>Tehran, Iran</i>
2016	<b>1rd Place</b> , World Mathematics Team Championship, Selection Exam	<i>Tehran, Iran</i>

## SKILLS

<b>Programming</b>	Python   C/C++   HTML/CSS3   JS   LaTeX   VBA
<b>Data Science</b>	Tensorflow/Keras   PyTorch   SKLearn   Matplotlib   Opencv   Pandas
<b>IDEs/Tools</b>	Anaconda   VSCode   PyCharm   VIM Terminal   MATLAB   Proteus Simulator   Adobe PS/AI/PR/AE   Altium Designer   CodeVision   DeepLabCut
<b>Languages</b>	Native Farsi   English (TOEFL iBT Overall:103 - R24L30S25W24)   Basic Arabic