

# Seyed Soroush Hosseini Naghavi

SCIENCE AND RESEARCH BRANCH OF IAU · DEPARTMENT OF COMPUTER ENGINEERING

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*"Make the change that you want to see in the world."*

## Research Interests

- Machine Learning
- Deep Learning Optimization and Efficiency
- Image Processing
- Neural/Brain Imaging and Neuroscience
- Signal Processing

## Education

### Science and Research Branch IAU

COMPUTER ENGINEERING - BACHELOR OF SCIENCE

*Tehran, Iran*

*Sept. 2019 - Present*

- MGPA: 3.59/4 via 78 units
- CGPA: 3.14/4 via 146 units
- Score: 15.6/20 via 146 units
- High-Graded related courses:
  - AI and Expert Systems: 20
  - Algorithm Design: 17
  - DataBases: 20
  - MicroProcessors: 20

### Danesh High-School

MATHEMATICS AND PHYSICS - DIPLOMA OF SCIENCE

*Tehran, Iran*

*Sept. 2016 - 2019*

## Honors & Awards

2022	<b>Technical Committee</b> , Self-Driving Cars, National Robotics Competition, RoboCup Open	<i>Tehran, Iran</i>
2023	<b>Technical Committee</b> , Self-Driving Cars, National Robotics Competition, RoboCup Open	<i>Tehran, Iran</i>
2017 - 23	<b>Fellowship</b> , Iran's National Elites Foundation (INEF): Recognized as scientific elite	<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

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<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
<b>Languages</b>	Native Farsi, English, Basic Arabic

## Teaching Experience

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

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

*SRBIAU, Tehran, Iran*

*Jan. 2023 - Jun. 2023*

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

### Digital Systems Design

TEACHING ASSISTANT | INSTRUCTOR: MAHDI BAGHERIZADEH | (SCHOLAR)

*SRBIAU, Tehran, Iran*

*Jan. 2023 - Jun. 2023*

- Designing various logical circuits with different factors
- Theory and basics of FPGA, VLSI, PLD/CPLD

### Python/Tensorflow Workshop

TEACHING ASSISTANT | INSTRUCTOR: HAMIDREZA BOLHASANI | (SCHOLAR)

*SRBIAU, Tehran, Iran*

*Sept. 2022 - Dec. 2022*

- Theories of Machine Learning/Deep Learning
- Making Machine Learning models with SKLearn/Tensorflow
- Making Neural Networks and Deep Learning models with Tensorflow

### Microprocessors Lab

TEACHING ASSISTANT | INSTRUCTOR: SOMAYEH KHOROUSH

*SRBIAU, Tehran, Iran*

*Jul. 2022 - Aug. 2022*

- Simulating AVR microcontrollers with Proteus
- Programming various samples with AVR microcontrollers and C language

### Robotics, Programming & Electronics

TEACHER / TEACHING ASSISTANT

*Kavosh Creativity House,  
Tehran, Iran*

*May 2019 - Dec. 2021*

- Programming for AVR Microchips with C Programming Language
- Running Simulations on AVR Microchips with Proteus PCB Design and Circuit Simulator
- Basics of Electronics & Soldering

## Research Experience

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

SRBIAU, Tehran, Iran

RESEARCH ASSISTANT | INSTRUCTOR: AZADEH ZAMANIFAR | (SCHOLAR)

Summer 2022

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

## Work Experience

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### National Robocup Committee of Iran

Tehran, Iran

TECHNICAL COMMITTEE & MEMBER

Jun. 2017 - Present

- Participation in International Robocup Competitions 2017 Nagoya, Japan and 2018 Montreal, Canada as a member of the IRNC and Kavosh Robotics Team
- Event management in IranOpen Robocup 2022 and IranOpen Robocup 2023
- Technical committee/Referee, Self-Driving cars League, IranOpen Robocup 2022 and IranOpen Robocup 2023
- Organizing Committee, Practical Leagues sections, IranOpen Robocup 2020 and Asia-Pacific Robocup 2018

### Ariaz Balan Servat

Tehran, Iran

IT SPECIALIST & GRAPHIC DESIGNER

Feb. 2021 - May 2021

- Maintain & manage office devices and computers
- Content creation for various social medias, Posters and Flyers

### Kavosh Creativity House

Tehran, Iran

SHAREHOLDER, TEACHER & GRAPHIC DESIGNER

May 2019 - Dec. 2021

- Teaching 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

- Developing the Software/Hardware for an autonomous robot
- Implementing different navigation algorithms
- Various methods to rescue victims using the robot