

# Seyed Soroush Hosseini Naghavi

Bachelors of Computer Engineering

Science and Research branch of IAU | Department of Computer and Electrical Engineering

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## Research Interests

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

## Experience

June 2017 - Present

### 🏢 Technical Committee/Member, National Robocup Committee of Iran

- 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

February 2021 - May 2021

### 🏢 IT Specialist/Graphic Designer - Ariaz Balan Servat

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

May 2019 - December 2021

### 🏢 Shareholder/Teacher/Graphic Designer - Kavosh Creativity House

- Teaching C Programming language, Electronics and soldering at various schools/high-schools
- Designed Flyers/Posters/Contents etc.

September 2016 - March 2019

### 🤖 Team member/Programmer, Kavosh Robotics team

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

## Education

Bachelor of Science • 2019 - 2023

### Science and Research branch IAU, Tehran

- Computer Engineering
  - Score: 16.54/20 via 144 Units

Diploma of Science • 2019 - 2023

### Danesh High-school, Tehran

- Mathematics and Physics

## Awards

- Iran's National Elites Foundation (INEF) Fellowship [2017-2023]: Recognized as scientific elite
- 1st Place in international robotics competition, RoboCup 2018, Montreal, Canada • Robocup Federation, IEEE
- 1st Place in international robotics competition, RoboCup 2017, Nagoya, Japan • Robocup Federation, IEEE
- 1st Place in the main competition at national robotics competition, RoboCup Asia-Pacific 2018, Kish Island, Iran • IRNC
- 1st Place in the main competition at national robotics competition, RoboCup IranOpen 2017, Tehran, Iran • QIAU, IRNC
- 1st Place in the main competition at national robotics competition, RoboCup IranOpen 2018, Tehran, Iran • QIAU, IRNC
- 1st Place at national robotics competition, AUTCup 2016, Transposter B League • AUT
- 1st Place in selection exam at World Mathematics Team Championship 2016 • WMTC Iran

## Courses/Workshops

- Cs231n, Efficient methods and Hardware for Deep Learning • Stanford, Song Han
- RaspberryPi Professional Workshop • SRBIAU, Hamidreza Givehchi
- Pytorch and Torchvision Implementation • ZerotoMastery.io, Daniel Bourke
- Tensorflow Implementation • ZerotoMastery.io, Daniel Bourke

## Computer Skills

- Python
  - Tensorflow
  - Pytorch
  - SKLearn
  - Pandas, MPLib, Numpy
- C/C++
- HTML/CSS3
- JavaScript
- IDEs/Tools
  - VSCode
  - PyCharm
  - MATLAB
  - Altium Designer
  - CodeVision
  - Proteus Simulator
  - Adobe PS/AI/PR/AE

## Language Skills

- Persian            Native
- English           Professional
- Arabic            Basic

## Teaching Experience

Teaching Assistant • January 2023 - June 2023

- Advanced Topics 01 - Data Mining
  - Instructor: Farsad Zamani Boroujeni • Science and Research Branch IAU
    - Design and Implementation of Neural Networks
    - Theory and basics of linear algebra and mathematics in Neural Networks

Teaching Assistant • January 2023 - June 2023

- Digital Systems Design
  - Instructor: Mahdi Bagherizadeh • Science and Research Branch IAU
    - Designing various logical circuits with different factors
    - Theory and basics of FPGA, VLSI, PLD/CPLD

Teaching Assistant • September 2022 - December 2022

- Python/Tensorflow Workshop
  - Instructor: Hamidreza Bolhasani • Science and Research branch IAU
    - Machine Learning/Deep Learning Theory
    - Making ML models with SKLearn/Tensorflow
    - Making Neural Networks and Deep Learning models with Tensorflow

Teaching Assistant • July 2022 - August 2022

- Microprocessors Lab
  - Instructor: Somayeh Khoroush • Science and Research branch IAU
    - Simulating AVR microcontrollers with Proteus
    - Programming various samples with AVR microcontrollers and C language

## Research Experience

Research Assistant • Summer 2022

- Handwriting Recognition in the medical industry (Prescription Recognition)
  - Supervisors: Azadeh Zamanifar, Ladan Pirouz, Mahdi Saeidi
    - 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