# 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**

Tehran, Iran

COMPUTER ENGINEERING - BACHELOR OF SCIENCE

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:
  - Al 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	Tehran, Iran
2023	<b>Technical Committee</b> , Self-Driving Cars, National Robotics Competition, RoboCup Open	Tehran, Iran
2017 - 23	Fellowship, Iran's National Elites Foundation (INEF): Recognized as scientific elite	Tehran, Iran
2018	<b>1st Place</b> , International Robotics Competition, Robocup	Montreal, Canada
2017	<b>1st Place</b> , International Robotics Competition, Robocup	Nagoya, Japan
2018	<b>1st Place</b> , International Robotics Competition, Robocup Asia-Pacific	Kish Island, Iran
2018	<b>1rd Place</b> , National Robotics Competition, Robocup Open	Tehran, Iran
2017	1rd Place, National Robotics Competition, Robocup Open	Tehran, Iran
2016	<b>1rd Place</b> , National Robotics Competition, AUTCup Amirkabir University	Tehran, Iran
2016	<b>1rd Place</b> , World Mathematics Team Championship, Selection Exam	Tehran, Iran

Skills

**Programming** Python | C/C++ | HTML/CSS3 | JS | LaTeX | VBA

**Data Science** Tensorflow/Keras | PyTorch | SKLearn | Matplotlib | Opencv | Pandas

IDEs/Tools Anaconda | VSCode | PyCharm | VIM Terminal | MATLAB | Proteus Simulator | Adobe PS/AI/PR/AE | Altium Designer |

CodeVision

**Languages** Native Farsi, English, Basic Arabic

# **Teaching Experience**

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

TEACHING ASSISTANT | INSTRUCTOR: FARSAD ZAMANI BOROUJENI

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

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

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**

Kavosh Creativity House, Tehran, Iran

May 2019 - Dec. 2021

TEACHER / TEACHING ASSITANT

- 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**

# Handwriting Recognition in the medical industry (Prescription Recognition)

SRBIAU, Tehran, Iran

RESEARCH ASSISTANT | INSTRUCTOR: AZADEH ZAMANIFAR

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 \_\_\_\_

#### **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