Seyed Soroush **Hosseini Naghavi**

SCIENCE AND RESEARCH BRANCH OF IAU · DEPARTMENT OF COMPUTER ENGINEERING

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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:
  - Advanced Topics 01 - Neural Networks: 18.25
  - AI and Expert Systems: 18
  - Algorithm Design: 17
  - MicroProcessors: 19

Honors & Awards

2022	**Technical Committee,** Self-Driving Cars, National Robotics Competition, RoboCup Open	*Tehran, Iran*
2023	**Technical Committee,** Self-Driving Cars, National Robotics Competition, RoboCup Open	*Tehran, Iran*
2018	**1st Place,** International Robotics Competition, Robocup	*Montreal, Canada*
2017	**1st Place,** International Robotics Competition, Robocup	*Nagoya, Japan*
2018	**1st Place,** International Robotics Competition, Robocup Asia-Pacific	*Kish Island, Iran*
2018	**1rd Place,** National Robotics Competition, Robocup Open	*Tehran, Iran*
2017	**1rd Place,** National Robotics Competition, Robocup Open	*Tehran, Iran*
2016	**1rd Place,** National Robotics Competition, AUTCup Amirkabir University	*Tehran, Iran*
2016	**1rd Place,** 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

Research Experience

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

Teaching Experience

Advanced Topics 01 - Deep Learning & Neural Networks
SRBIAU, Tehran, Iran

Teaching Assistant | Instructor: Farsad Zamani Boroujeni | (Scholar)
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
SRBIAU, Tehran, Iran

Teaching Assistant | Instructor: Mahdi Bagherizadeh | (Scholar)
Jan. 2023 - Jun. 2023

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

Python/Tensorflow Workshop
SRBIAU, Tehran, Iran

Teaching Assistant | Instructor: Hamidreza Bolhasani | (Scholar)
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

Robotics, Programming & Electronics
Kavosh Creativity House, Tehran, Iran

Teacher / Teaching Assitant
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

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