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 ASSITANT   *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

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

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	**Technical Committee,** Self-Driving Cars, National Robotics Competition, RoboCup Open	*Tehran, Iran*
2022	**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 | DeepLabCut
Languages	Native Farsi | English (TOEFL iBT Overall:103 - R24L30S25W24) | Basic Arabic