# AmirMohammad Nouri

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amirmohmammadnouri.github.io



#### **Education**

• Bachelor's Degree in Biomedical Engineering(Bioelectric)

(2020-2024)

Qazvin Islamic Azad University, Qazvin, Iran

CGPA:18.8/20(3.8/4)

Master of Business Administration

(2021-2022)

Tehran University, Faculty of Management, Tehran, Iran

CGPA:19/20(3.8/4)

High School Diploma and Pre-University in Natural Sciences

(2014-2019)

Shahid Soltani2(National organization for development of exceptional talents), Alborz, Iran

# **Research Interests**

- Medical Image Analysis
- Medical image 3D reconstruction
- **Artificial Neural Network**
- Reinforcement learning
- **Medical Robotics**

#### **Publications**

Gozar Ali Hazareh, Kasra Azizi, Alireza Mazloumi, AmirMohammad Nouri and Mohammad Norouzi (2024). A vision-based approach for quadrotor line following with sliding mode controller. 10th International Conference on Artificial Intelligence and Robotics-QICAR2024

#### **Patents**

• AmirMohammad Nouri. "Antibacterial hospital bed coated with Silver Nanoparticles for Organ transplant patients"

IR Registration No. 103694

Application Date:9<sup>th</sup> February 2021

AmirMohammad Nouri, Ali Maleki, Amin Mousavi. "Design and manufacture of horseshoes with Carbon NanoComposites"

IR Registration No. 88786

Application Date:31<sup>th</sup> May 2016

# **Experiences**

<ul> <li>Research assistant in Medical Image Analysis         AI specialized center of Alborz University of Medical Sciences     </li> </ul>	Alborz , Iran Feb2023-Present
<ul> <li>Teacher assistant for Signal processing</li> <li>Prof. Hamid Ghadiri, Qazvin Islamic Azad University</li> </ul>	Qazvin , Iran Nov-Jan 2023
• Research assistant in Computer Vision at UAV Robotic Team Mechatronics Research Laboratory (MRL)	Qazvin , Iran 2021-Present
• intermediate level English teacher Alborz MS NGO	Alborz , Iran Feb-May2020

#### Honors and Awards

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• The representative team and the 1st place of the flying robot league MRL-UAV, RoboCup Asia Pacific invitational tournament	Tianjin, China 2023
• 1st place of International Unmanned Aerial Vehicle Robot League MRL-UAV, IranOpen Competition	Tehran, Iran 2023
• 1st place of International Unmanned Aerial Vehicle Robot League MRL-UAV, IranOpen Competition	Tehran, Iran 2022

# **Selected Projects**

- Embolism segmentation using Pytorch and MONAI in lung CT images based on the U-Net architecture
- The detection and classification of breast cancer cells in bright-field microscopy images based on YOLOv7 architecture
- Measurement of fetal head circumference from 2D ultrasound images using YOLOv8 for the diagnosis of congenital abnormalities
- Testing and implementing object detection Algorithms on custom datasets for RoboCup missions
- fine tuning Transformer based Optical Character Recognition(TrOCR) model on a Persian text dataset called Shotor
- Development behaviour, localization and path-planning of autonomous flying robots in robot operating system (ROS)
- Object detection and localization using HSV colorspace and Opency library

#### Skills

- **Programming Languages:** Python, C, C++, Latex
- Professional skills and softwares: 3D Slicer, PSpice, Linux, ROS, Git, SQL, SLAM
- Frameworks and libraries: MONAI, Pytorch, Tensorflow, Opency, sklearn, depthai
- Soft skills: Team work, Leadership and public speaking

## **Certifications**

- Advanced Computer vision with Tensorflow
- Convolutional Neural Networks
- Supervised Machine Learning [7]
- PyTorch and Monai for AI Healthcare Imaging

# **Test Scores**

# • English IELTS Overall:7.5

Reading:8.5, Listening:8, Writing:6.5, Speaking:7

# References

# • Dr. Mohammad Norouzi

Faculty of Electrical, Computer and IT Engineering, and Mechatronics Qazvin Azad University(Mechatronics Research Laboratory Director) Email: norouzi@qiau.ac.ir

## • Dr. Hamid Ghadiri

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