Arvin Mohammadi

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Research Interests

Robotics, Mobile Robotics, Space Robotics

Education

University of Tehran Tehran, Iran
B.S. in Mechanical Engineering *AVG Score: 16.23/20* *GPA: 3.22/4* 2019 – 2024
Dr. Mehdi Tale Masouleh*, Dr. Mohammad Reza Hairi Yazdi*

Selected Courses
Linear Control Robotics Artificial Intelligence Reinforcement Learning

Honors

Top 0.1% of 15,000 participants in Statewide High-School Entrance Exam 2016
Top 0.5% of 164,000 participants in National University Entrance Exam 2019

Publications

Generating a General Culturing Microorganism Pattern Using a Delta Parallel Robot and Cam-in-Hand Calibration Method*
IEEE Conference Paper - ICRoM State: Published

Experimental Study on Autonomous Food Packaging with Delta Parallel Robot and Two Fingered Gripper*
IEEE Conference Paper - ICEE State: Published

Experimental Study on The Pick-and-Place Operation of a 3-DOF Delta Robot*
IEEE Conference Paper - ICEE State: Published

Experimental Study on Automated Pipette Filling Using Delta Parallel Robot and Randomized Rack Arrangements
Journal Paper State: Submitted to Robotica*

Experimental Study of Trajectory Planning for Positional Accuracy in Delta Parallel Robot
Journal Paper State: Submitted to Springer Nature*

Research Exp.

Researcher - Delta Parallel Robot Summer 2023 – Summer 2025
(Laboratory of Human and Robot Interaction - University of Tehran*)
Motion Planning — Computer Vision — Image Processing — Robot Kinematics

Researcher - Autonomous Vehicle Summer 2021
(PSG Team - University of Tehran*)
Computer Vision — Transfer Learning — Image Processing — Object Detection

Industrial Exp.

Intern - Delta Parallel Robot Summer 2022
(Tavan Resan Corp.*)
Motion Planning

Projects

Robotics - Delta Robot Trajectory Planning -v3.0 ..... GitHub repository*
Robotics - Delta Robot Trajectory Planning -v2.0 ..... GitHub repository*
Robotics - Delta Robot Trajectory Planning -v1.0 ..... GitHub repository*
Robotics - Autonomous Vehicle Obstacle Detection -v2.0 .. GitHub repository*
Robotics - Autonomous Vehicle Obstacle Detection -v1.0 .. GitHub repository*
Robotics - Planar Obstacle Avoidance ..... GitHub repository*

University Robotics Project - Image Processing ..... GitHub repository*
University Robotics Project - Arduino and MPU-6050 ..... GitHub repository*
University Robotics Project - ROS Turtle-Sim ..... GitHub repository*

University AI Project - XGBoost ..... GitHub repository*
University AI Project - DQN ..... GitHub repository*
University AI Project - Gradient Bandit ..... GitHub repository*
University AI Project - Decision Tree ..... GitHub repository*
University AI Project - Markov Decision Process ..... GitHub repository*
University AI Project - GAN ..... GitHub repository*
University AI Project - LSTM ..... GitHub repository*
University AI Project - RNN ..... GitHub repository*
University AI Project - YoloV3 ..... GitHub repository*
University AI Project - EfficientNet ..... GitHub repository*
University AI Project - InceptionV3 ..... GitHub repository*
University AI Project - ResNet50 ..... GitHub repository*
University AI Project - VGG16 ..... GitHub repository*

Skills

Programming
Python (Numpy, Pandas, Open-CV, Scikit-learn, PyQt5, Open-CV, Pygame, etc)
MATLAB — Octave — C — C++ — HTML — CSS

Artificial Intelligence
Pytorch — Tensorflow — Keras

Software
SolidWorks — AutoCAD — ROS — Powermill — SAM — Arduino — Latex
WordPress — Adobe Photoshop — Adobe Illustrator — Adobe Premier

Soft Skills
Team Player — Project Management — Problem Solver — Passionate

Certificates

MATLAB Course ..... Coursera online, Vanderbilt University*
Machine Learning Course ..... Coursera online, Stanford University*
IEEE Conference Paper ..... ICRoM 2023*