

MAHTA AKHYANI

Tehran, 1466976184 Iran

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EDUCATION

- 03/2023 **Bachelor of Science: Chemical Engineering**
University of Tehran - Iran
GPA: 15.61/20
B.Sc. thesis (**Full Marked**) : *Design of mobile robot with SLAM capabilities for pipe inspection in chemical and petroleum industries*
Subdiscipline:
 - Biotechnology
 - Food Processing
- 06/2018 **High school Diploma : Mathematics And Physics**
Manzoumeh Kherad Institute - Iran
GPA: 18.27/20

RESEARCH INTERESTS

- Human-Robot Interaction (HRI)
- Social and Cognitive Robots
- Soft Robots
- Assistive Technology
- Wearable Sensors

RESEARCH EXPERIENCE

- 08/2022 to Current [Terahertz Photoelectronics Lab](#)
Department of Computer and Electrical Engineering, University of Tehran
Supervisor: **Dr. Mohammad Neshat**
Project Title: **Electrically Conductive Mixed Matrix Membrane-Based 3-Layered Geometrically Matching Head Phantom with Layer-Specific Conductivity** [More info](#)
Synthesizing 3 layers of different conductive bio-friendly polymers with certain conductivities
 - Keywords: Graphite oxide (GO), Polyaniline (PANI), Conductive polymer composites (CPCs), Cross-linking agents, Starch, PDMS, 4-point probe measurement
- 06/2022 to Current [Advanced Robotics and Intelligent Systems Lab](#)
Department of Computer and Electrical Engineering, University of Tehran
Supervisor: **Prof. Hadi Moradi**
Project Title: **All-in-one Web-integrated Open-Source Social Robot Framework** [More info](#)
 - Developing **ROS**-based web user interface
 - Designing and implementing facial expressions for imitation
 - Developing a uniform Python code base and modulating functions

[Pharmaceuticals Lab](#)

03/2019 to 02/2020 **Pharmacology Lab** *Department of Chemical Engineering, University of Tehran*

Supervisor: **Dr. Reza Zarghami**

Project Title: **Chem-E-Car Competition** [More info](#)

Design and construction of a car powered by synthesized chemical energy source and brake system

- Research and Synthesis of a new form of Zinc-Air battery
- Designing Brake System based on “Ammonia fountain”

TEACHING EXPERIENCE

Spring 2022

Teaching Assistant

Advanced Robotics (Graduate)

Department of computer and electrical engineering, University of Tehran

Lecturer: Prof. Hadi Moradi

- Guided students with **ROS**-related topics
- Provided assistance with the preparation of student's localization project
- Holding tutorial-workshop sessions
- Supervising the progress of each group during each session

Winter 2021

Teaching Assistant

Learning Python with Computer Vision approach

[RoboTech Academy](#)

- Plan, implement and grading weekly quizzes and assignments
- Assisting students with additional help to reinforce learning concepts
- Self-study class materials in advance to best help the students

VOLUNTEER EXPERIENCE

05/2019 to 07/2019 **Self-Directed Volunteer Teacher**

Teaching Python fundamentals during summer to interested students

JOB EXPERIENCE

10/2021 to 07/2022 **Freelanced Project**

Simulation, and Build of a ROS-based SLAM capable Mobile Robot

- Design and Building a differential robotic system using **ROS**
- Testing the Robot in Simulation And in the Real World [More info](#)

04/2020 to 02/2021 **Co-founder and CTO of Fanjoo**

A Platform for Affordable Exchange of Knowledge

Fanjoo was motivated by filling the gap between our educational and industrial system by developing a platform for empowering people with mandatory skills not taught in the public educational system. [More info](#)

Skills achieved:

- Effective Collaboration
- Team Leadership
- Project Management
- Scheduling and Task Management
- Self Disciplinary
- Team-Building

10/2019 to 01/2020 **Django Backend Developer**

[UTech Academy](#) - Tehran, Iran

- Independent back-end Django REST developer [GitHub](#)

TECHNICAL SKILLS

- Python
- ROS
- Linux (Ubuntu)
- SolidWorks
- Adobe Character Animator
- Django REST Framework
- HTML, CSS, JS
- Git
- Deep Learning
- Familiar with: OpenCV, Tensorflow

CERTIFICATIONS AND EXTRA COURSES

April 2022 **TOEFL Test** Overall Score: **97/120** (r27,l25,s22,w23)

Spring 2021 **Fundamentals of Mechatronics**

Department of electrical and computer engineering, University of Tehran , Iran

Lecturer: Dr. Mehdi Tale Masouleh

- Project Grade: **120 out of 80**
- Overall Grade: **19.5 out of 20**

Winter 2020 **Deep Learning and Computer Vision**

[RoboTech Academy](#)

- Not graded

Summer 2019 **Back-End Developing with Django**

[UTech Academy](#)

- Grade: **100/100**

Summer 2018 **Programming with Python**

[Tehran Institute of Technology](#)

- Grade: **95/100**

HONOURS AND AWARDS

Summer 2018 **University Entrance Exam top 0.7%**

Ranked top 0.7% in among 144000 participants in the Iranian University Entrance Exam ([IUEE](#)) for B.Sc.

Spring 2017 **Best Provincial Project, 18th Khwarizmi Scientific Competition Youth Awards ([KYA](#)), Tehran**

Project Title: "Designing Different Types of Electrical Compass".

Winter 2015 **School Science Fair Winning Project In The Chemistry Category**

Project Title: "Biological wastewater treatment (heavy metals) with algae".

REFERENCES

Full Professor **Prof. Hadi Moradi** moradih@ut.ac.ir

Full Professor **Prof. Reza Zarghami** rzarghami@ut.ac.ir