

MAHTA AKHYANI

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EDUCATION

- Expected in 09/2023 **Bachelor of Science: Chemical Engineering**
University of Tehran - Iran
B.Sc. thesis: The role of SLAM robots in pipe inspection in chemical and petroleum industries
- 06/2018 **High school Diploma: Mathematics And Physics**
Manzoumeh Kherad Institute - Iran

RESEARCH INTERESTS

- Human-Robot Interaction (HRI)
- Social and Cognitive Robotics
- Cognitive Science
- Children with special needs

RESEARCH EXPERIENCE

- 06/2022 to Current **Advanced Robotics and Intelligent Systems Lab**
Department of Computer and Electrical Engineering, University of Tehran
Supervisor: **Dr. Hadi Moradi**
Project Title: **Social Robot for eliciting empathy to help children with ASD**
- Developing **ROS**-based web user interface.
 - Designing and implementing facial expressions for imitation.
 - Creating a uniform Python code base and modulating functions.
- 03/2019 to 02/2020 **Pharmacology Lab**
Department of Chemical Engineering, University of Tehran
Supervisor: **Dr. Reza Zarghami**
Project Title: **Chem-E-Car Competition**
Designing and constructing a car powered by a chemical energy source.
- Research and Synthesis of a new form of Zinc-Air battery
 - Designing Brake System based on “Ammonia fountain”

EXPERIENCE

- Spring 2022 **Teaching Assistant**
Advanced Robotics (Graduate)
Department of computer and electrical engineering, University of Tehran
- Guided students requiring additional help in **ROS**-related topics.
 - Provided assistance with the preparation of student's **SLAM** project.

Winter 2021

Teaching Assistant

Learning Python with Computer Vision approach

RoboTech Academy

- Plan and implement weekly quizzes following the academy's curriculum.
- Checked assignments, tests, and provided grades.
- Tutored struggling students to reinforce learning concepts.
- Advanced knowledge of field continuously to best help the students.

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

Simulation, and Construction of a ROS-based SLAM Robot

- Design, configuration, and application of the robotic system using **ROS**
- Simulation of the robot **SLAM** functionality in Gazebo
- Build and test the robot in real-time

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

A Platform for Affordable Exchange of Knowledge

Fanjoo was initiated by Mahta Akhyani and Parsa Mashayekh. Our work as a team was motivated by filling the gap between our national educational and industrial system by developing a platform for empowering people with mandatory skills not taught in the public educational system.

Skills achieved:

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

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

UTech Academy - Tehran, Iran

- Worked independently to design and develop code
- Integrated Java-based web service such as REST into database management project using Python.

TECHNICAL SKILLS

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|------------------|-----------------------------------|
| • Python | • Django REST Framework |
| • ROS | • HTML, CSS, JS |
| • Gazebo | • Adobe Character Animator |
| • SolidWorks | • Familiar with: OpenCV, |
| • Git | Tensorflow, Deep learning basics, |
| • Kivy Framework | SLAM basics, Adobe Illustrator. |

VOLUNTEER EXPERIENCE

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

Teaching Python fundamentals during summer to interested chemical engineering students.

CERTIFICATIONS AND EXTRA COURSES

Spring 2021	Fundamentals of Mechatronics <i>Department of electrical and computer engineering, University of Tehran , Iran</i> <ul style="list-style-type: none">• Project Grade: 120/80 - Overall: 19.5/20• Lecturer: Dr. Mehdi Tale Masouleh
Winter 2020	Deep Learning and Computer Vision <i>RoboTech Academy</i> <ul style="list-style-type: none">• Not graded
Summer 2019	Back-End Developing with Django <i>UTech Academy</i> <ul style="list-style-type: none">• Grade: 100/100
Summer 2018	Programming with Python <i>Tehran Institute of Technology</i> <ul style="list-style-type: none">• Grade: 95/100

HONOURS AND AWARDS

Summer 2018	IUEE 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 for heavy metals removal with algae".