MAHTA AKHYANI

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EDUCATION

Expected in 12/2023	**Bachelor of Science**: **Chemical Engineering** **University of Tehran** - Iran B.Sc. thesis **(Full Marked)** : Design of mobile robot with SLAM capabilities for pipe inspection in chemical and petroleum industries
06/2018	**High school Diploma (18.27/20)**: **Mathematics And Physics** **Manzoumeh Kherad Institute** - Iran

RESEARCH INTERESTS

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

RESEARCH EXPERIENCE

08/2022 to Current **Terahertz Photoelectronics Lab**

Department of Computer and Electrical Engineering, University of Tehran
Supervisor: **Dr. Mohammad Neshat**
Project Title: **Non-invasive DBS for controlling Parkinson** More info

- Synthesizing the test subject monkey's brain phantom to mimic electrical and geometrical properties

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 interacting with children with ASD** More info

- Developing **ROS**-based web user interface
- Designing and implementing facial expressions for imitation
- Developing 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** More info
Design and construction of a car powered by synthezised 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 toturial-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 Moblie 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
- Schedualing 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 amoung 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