

# Mohadeseh Atyabi

Date of birth: 10/03/2000

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Gender: Female

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## EDUCATION

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- **Amirkabir University of Technology (Tehran Polytechnics)** *Tehran, Iran*  
*B. Sc, Computer Engineering* *Sep. 2018 – Mar. 2023*  
GPA: 3.93/4 (18.6/20)  
Thesis: Smart traffic sign management system based on mobile phone images (Grade: 20/20)  
Relevant Courses (Grade):
  - Principles of Artificial Intelligence (20/20)
  - Computational Intelligence (19.5/20)
  - Algorithm Design (20/20)
  - Advanced Programming (20/20)
  - Principles of Database Design (19.43/20)
  - Data Structures and Algorithms (19/20)
- **Imam Sadiq High School** *Tehran, Iran*  
*Diploma, Mathematics and Physics* *Sep. 2014 – Jun. 2018*  
GPA: 4/4 (19.88/20)

## RESEARCH INTERESTS

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Machine Learning	Artificial Intelligence	Robotics
Computer Vision	Deep Learning	Autonomous Driving

## TEACHING EXPERIENCE

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- **Head Teaching Assistant, Discrete Mathematics** *Fall 2023*  
Instructor: Dr. Mostafa Haghiri Chehreghani
- **Teaching Assistant, Data Mining** *Fall 2023*  
Instructor: Dr. Maryam Amirmazlaghani
- **Head Teaching Assistant, Principles of Artificial Intelligence** *Spring 2022 – Fall 2022*  
Instructor: Dr. Mahdi Javanmardi
- **Teaching Assistant, Microprocessor and Assembly Language** *Fall 2022*  
Instructor: Dr. Hamed Farbeh
- **Teaching Assistant, Data Structures and Algorithms** *Spring 2022*  
Instructor: Dr. Sajad Shirali-Shahreza
- **Teaching Assistant, Algorithm Design** *Spring 2022*  
Instructor: Dr. Alireza Bagheri

## HONORS

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- Ranked top 7% among all students of Department of Computer Engineering at Amirkabir University of Technology *2023*
- Awarded as Exceptional Talented student at Amirkabir University of Technology *2019 - 2023*

- Ranked top 1% among all participants in the national university entrance exam in Iran 2018
- Ranked 1<sup>st</sup> in the best scientific seminars of the 10<sup>th</sup> Tebian Student Projects Festival, Imam Sadiq High School, Tehran, Iran 2015  
Topic: *Therapeutic effects of titanium nanoparticle on hospital and respiratory system infections caused by Acinetobacter bacteria* [\[Link to site\]](#)

## NOTABLE PROJECTS

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- **Smart Traffic Sign Management System Based on Mobile Phone Images:** A system for automatically detecting and locating traffic signs in images without the spatial data of the signs [\[Link to GitHub\]](#).  
Here is the collected training and test datasets for this project [\[Link to Kaggle\]](#). Mar. 2023
- **Speech Command Classification:** An implementation of a voice assistant that can recognize and classify the command in a voice using a customized CNN [\[Link to GitHub\]](#). Jul. 2023
- **Snail Jumper:** An implementation of evolutionary game with genetic algorithm and neural network [\[Link to GitHub\]](#). May. 2022
- **CIFAR-10 Classification:** Classifying CIFAR-10 data by creating fully connected CNN from scratch [\[Link to GitHub\]](#). Mar. 2022
- **Pac-Man:** Implementation of several search algorithms, multiagent minimax and expectimax algorithms, alpha-beta pruning, reinforcement learning algorithms [\[Link to GitHub\]](#). Nov. 2021 – Feb. 2022
- **Heart Disease Diagnosis:** A heart disease diagnosis system using fuzzy expert system [\[Link to GitHub\]](#). Jun. 2022

## WORK EXPERIENCE

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- **Research Assistant:** Working on state-of-the-art state prediction algorithms, point clouds, and graphs; under the supervision of Dr. Mahdi Javanmardi, Amirkabir University of Technology, Tehran, Iran. Apr. 2023 - Present
- **Front-End Developer:** Designing and implementing websites using HTML, CSS, and JavaScript (Internship), Farazpardazan Company, Tehran, Iran. May. 2021 – Sep. 2021

## PUBLICATIONS

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- **PointNet meets Self-Attention Graph Pooling:** A Synergistic Approach to Point Cloud Classification; M. Ebadpour, M. Atyabi, M. Choupan, M. Javanmardi, in preparation, 2023 [\[Link to GitHub\]](#).

## LANGUAGES

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- **Persian:** Native
- **English:** Advanced, TOEFL iBT (November 2023)  
Total: 101/120  
Reading: 23, Listening: 26, Speaking: 24, Writing: 28

## TECHNICAL SKILLS

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- **Programming Language:** Python, Java, C++, MATLAB, SQL
- **Library and Framework:** PyTorch, Numpy, Tensorflow, Matplotlib, Pandas, OpenCV
- **Development Tool:** IntelliJ, PyCharm, Git, DataGrip, Arduino IDE, Proteus, Label Studio, GIS

## **Voluntary Work**

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- Member of the executive staff of the seventh Amirkabir Artificial Intelligence Competition, under the supervision of Dr. Ahmad Nickabadi. *May, 2023*

## **References**

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- Dr. Mahdi Javanmardi  
Amirkabir University of Technology, Tehran, Iran  
Email: [mjavan@aut.ac.ir](mailto:mjavan@aut.ac.ir)
- Dr. Alireza Bagheri  
Amirkabir University of Technology, Tehran, Iran  
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- Dr. Hamed Farbeh  
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