Mohadeseh Atyabi

Date of birth: 10/03/2000

Gender: Female

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EDUCATION

- **Amirkabir University of Technology (Tehran Polytechnics)**   *Tehran, Iran*
  B. Sc, Computer Engineering   *Sep. 2018 – Mar. 2023*
  GPA: 3.94/4 (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

Machine Learning	Artificial Intelligence	Robotics
Computer Vision	Deep Learning	Autonomous Driving

TEACHING EXPERIENCE

- **Head Teaching Assistant, Principles of Artificial Intelligence**   *Spring 2022 – Fall 2022*
  Instructor: Dr. Mahdi Javanmardi

- **Teaching Assistant, Microprocessor and Assembly Language**   *Fall 2022*
  Instructure: Dr. Hamed Farbeh

- **Teaching Assistant, Data Structures and Algorithms**   *Spring 2022*
  Instructure: Dr. Sajad Shirali-Shahreza

- **Teaching Assistant, Algorithm Design**   *Spring 2022*
  Instructure: Dr. Alireza Bagheri

HONORS

- 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 1st in the best scientific seminars of the 10th 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

- **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

- **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

- **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

- **Persian:** Native
- **English:** Advanced, registered for TOEFL iBT exam in October 2023

TECHNICAL SKILLS

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

Voluntary Work

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

References

- Dr. Mahdi Javanmardi
  Amirkabir University of Technology, Tehran, Iran
  Email: mjavan@aut.ac.ir
- Dr. Alireza Bagheri
  Amirkabir University of Technology, Tehran, Iran
  Email: ar_bagheri@aut.ac.ir
- Dr. Hamed Farbeh
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