

# Maedeh Mirzazadeh

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Location: Tehran-Iran

## RESEARCH INTERESTS

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- Medical Image Analysis
- Machine Learning
- Deep Learning
- Computer Vision
- Robotics
- Dynamic Systems

## EDUCATION

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- **Amirkabir University of Technology** Tehran, Iran  
B.S. in Computer Engineering September 2018 - current  
GPA: **4/4 (19.34/20.0)**  
Major related courses:
  - Principles of Computational Intelligence: 20/20
  - Principles and Applications of Artificial Intelligence: 20/20
  - Algorithm Design: 20/20
  - Data Structures and Algorithms: 19/20
  - Advanced Programming: 20/20
  - Dynamics: 19/20Supervisor: Prof. Reza Safabakhsh [homepage]
- **National Organization for Development of Exceptional Talents** Qom, Iran  
High School Diploma in Mathematics and Physics September 2015 - June 2018  
GPA: 19.96/20.0

## TEACHING EXPERIENCE

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- **Head Teaching Assistant, Principles and Applications of Artificial Intelligence** Spring 2022, Fall 2022  
Instructor: Dr. Javanmardi [linkedin] Amirkabir University of Technology
- **Teaching Assistant, Algorithm Design** Spring 2022  
Instructor: Dr. Bagheri [homepage] Amirkabir University of Technology
- **Teaching Assistant, Data Structure** Spring 2022  
Instructor: Dr. Shahreza [website] Amirkabir University of Technology
- **Teaching Assistant, Operating Systems** Fall 2022  
Instructor: Dr. Javadi [homepage] Amirkabir University of Technology
- **Teaching Assistant, Microprocessor and Assembly Language** Spring 2022  
Instructor: Dr. Farbeh [homepage] Amirkabir University of Technology

## HONORS AND REWARDS

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- Ranked top **2%** among students of computer engineering department(**4 out of 176** students) 2018 - 2022
- Ranked top **1%** among over 144000 Iranian participants in the national university entrance exam(Regional rank of 366 and nationwide rank of 1247) 2018
- Awarded as university's exceptionally talented student 2018 - 2022

## WORK EXPERIENCE

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- **Institute for Research in Fundamental Sciences(IPM)** Tehran, Iran  
Internship May 2021 - September 2021  
Machine learning in detection and classification of leukemia
- **Quera College** Tehran, Iran  
C++ Tutor December 2020 - December 2021  
Teaching fundamentals of C++ and computational thinking at CodeUp 2 and 3 to a group of high school students

## NOTABLE ACADEMIC PROJECTS

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- **CoDet**
  - Implementation of an app-based COVID-19 detection system for CXR images and CT scans using VGG16, VGG19, ResNet50 and InceptionV3 models[code]
- **Projects Related to Principles of Computational Intelligence Course**
  - Implementation of a fuzzy expert system for heart disease diagnosis[code]
  - Implementation of a pure-python image classification model using fully connected neural networks and CIFAR-10 dataset[code]
  - Implementation of a neuroevolution algorithm using a simple game[code]
- **Projects Related to Principles and Applications of Artificial Intelligence Course**
  - Implementation of several search algorithms, multiagent minimax and expectimax algorithms, alpha-beta pruning, model-based and model-free reinforcement learning algorithms inside the Pacman world[code]

## SKILLS

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- **Programming Languages:** Java, C, C++, Python, SQL, ARM Assembly
- **Libraries and Frameworks:** Numpy, Matplotlib, TensorFlow, Keras, PyTorch
- **Engineering and Development Tools:** MySQL, SQL Server, Git, PyCharm, IntelliJ, DataGrip, Arduino IDE, Wireshark, Proteus

## LANGUAGES

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- **English:** Advanced TOEFL iBT(September 2022)  
Total Score: 111/120  
Reading: 30, Listening: 28, Speaking: 28, Writing: 25
- **Persian:** Native

## EXTRACURRICULAR ACTIVITIES

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- Referee and member of organization committee at “Student Demonstrative Robots” League March 2019  
*Iran Robocamp(FIRA CUP)*
- Mentoring student projects September 2020  
*Rasta summer school*