

Maedeh Mirzazadeh

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Address: 2222 Health Sciences Mall,
Vancouver, BC, Canada

RESEARCH INTERESTS

- Deep Learning
- Computer Vision
- Medical Image Analysis

EDUCATION

- **University of British Columbia** Vancouver, Canada
M.Sc. in Bioinformatics
Average Grade: **92/100**
Supervisor: Dr. Ali Bashashati [homepage]
September 2023 - current
- **Amirkabir University of Technology** Tehran, Iran
B.S. in Computer Engineering
GPA: **18.83/20.0 - Ranked among top 5%**
Supervisor: Dr. Reza Safabakhsh [homepage]
Thesis: Smart Road Asset Management System [code]
September 2018 - August 2023

WORK EXPERIENCE

- **UBC AI in Medicine Lab(AIMlab)** Vancouver, Canada
Research Assistant
Computer vision applications in digital pathology
Optimized patch selection
September 2023 - current
- **Turing in collaboration with Google** Remote
Part Time Project
Code Knowledge in LLMs
January 2025 - current
- **Institute for Research in Fundamental Sciences(IPM)** Tehran, Iran
Internship
Machine learning in detection and classification of leukemia
May 2021 - September 2021
- **Quera College** Tehran, Iran
C++ Tutor
Teaching fundamentals of C++ and computational thinking at CodeUp 2 and 3 to a group of high school students
December 2020 - December 2021

NOTABLE ACADEMIC PROJECTS

- **WSI Colon Polyp Subtype Classification Using Graph Neural Networks**
 - Development of an automated histopathological classification pipeline for colorectal polyp subtypes in Whole Slide Images using GNNs, featuring a comprehensive pipeline encompassing nuclei segmentation, nuclei feature extraction, WSI graph construction, and subtype classification of colon polyps[code]
- **Smart Road Asset Management System**
 - Development of an intelligent road asset management system incorporating YOLOv5 for automated asset identification, ZoeDepth for depth estimation, and QGIS for asset visualization[code]

TEACHING EXPERIENCE

- **Lead Teaching Assistant, CPSC 322** Fall 2024
Instructor: Dr. Mehrdad Oveisi[homepage] University of British Columbia
- **Teaching Assistant, CPEN 333** Winter 2023
Instructor: Dr. Farshid Agharebparast [homepage] University of British Columbia
- **Teaching Assistant, CPEN 211** Fall 2023
Instructor: Dr. Tor Aamodt [homepage] University of British Columbia
- **Teaching Assistant, Computational Intelligence** Spring 2023
Instructor: Dr. Mohammad Mehdi Ebadzadeh [website] Amirkabir University of Technology
- **Head Teaching Assistant, Principles and Applications of Artificial Intelligence** Spring 2022, Fall 2022
Instructor: Dr. Mahdi Javanmardi [Google Scholar] Amirkabir University of Technology
- **Teaching Assistant, Algorithm Design** Spring 2022
Instructor: Dr. Alireza Bagheri [homepage] Amirkabir University of Technology

HONORS AND REWARDS

- UBC multi-scale multi-modal image and omics computing for health program awardee [link] 2024 - current
- Awarded as Amirkabir university's exceptionally talented student 2018 - 2022
- Ranked top **5%** among students of computer engineering department 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

EXTRACURRICULAR ACTIVITIES

- **BIG24 Research Day** March 2024
Operation and Promotion Committee member
- **GCI Trainee** Winter 2023 - Current
Professional Development Committee
- **Robocamp(FIRA CUP)** March 2019
Referee and member of organization committee at "Student Demonstrative Robots" League
- **Rasta Summer School** September 2020
Mentoring students in computer science-related projects

SKILLS

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

LANGUAGES

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