Ashkan Ganj

Worcester, MA, USA
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Website

Education

Worcester Polytechnic Institute — Worcester, MA, USA
Ph.D in Computer Science — 2023–current

- Advisor: Tian Guo
- Cumulative **GPA: 4/4**

University of Mohaghegh Ardabili — Ardabil, Ardabil, Iran
Bachelor Of Engineering in Computer Engineering — 2018–2022

- Cumulative **GPA: 3.8/4** (18.25/20)
- **Ranked 2 th** cumulative GPA within the **top 5% of graduating** class

Publications

1. Mobile Depth Estimation: Challenges and Prospects — Feb 2024
   The 25th International Workshop on Mobile Computing Systems and Applications(HotMobile24)
   Ashkan Ganj, Yiqin Zhao, Hang Su, Tian Guo
2. Toward Scalable and Controllable AR Experimentation — Oct 2023
   1st ACM Workshop on Mobile Immersive Computing, Networking, and Systems(ImmerCom'23)
   Ashkan Ganj, Yiqin Zhao, Federico Galbiati, Tian Guo
3. LR-Net: A Block-based Convolutional Neural Network for Low-Resolution Image Classification — June 2023
   Iranian Journal of Science and Technology, Transactions of Electrical Engineering
   Ashkan Ganj, Mahdi Darvish, Mohsen EbadPour, Hamid Bahador

Professional Experiences

Worcester Polytechnic Institute — Worcester, MA
Research Assistant — May 2024 - Current

Worcester Polytechnic Institute — Worcester, MA
Teaching Assistant — January 2023 - May 2024

Access Endless Communication(AEC) — Tehran, Iran
Full-Stack Web Developer- Internship — August 2020 - March 2021

APA Cert Lab — Ardabil, Iran
Research Intern — December 2019 - August 2020

Projects

Accurate Metric Depth Estimation — Jan 2023 - current
Research Assistant
Project : Github

- The goal of this project is to propose a new and robust model for depth estimation that leverages mobile camera features.
- Identified current limitations and challenges of depth estimation models in the mobile AR scenario.
- Proposed a new model architecture that addresses these limitations and challenges.
- Research paper has been accepted at HotMobile24.

Image Classification via Convolutional Neural Networks Jan 2020 - Dec 2020
Undergraduate Research Assistant
Project : Github

- Developed a novel image classification architecture leveraging Convolutional Neural Networks (CNNs), focusing on optimizing layer configurations and activation functions for improved feature extraction.
- Achieved state-of-the-art (SOTA) performance on three benchmark datasets: MNIST Digit Recognition, Fashion-MNIST, and Oracle-MNIST, surpassing previous models in accuracy and computational efficiency.

Honors & Awards

- Awarded **Travel Grant**, ACM HotMobile 2024 Workshop. 2024
- "Toward Scalable and Controllable AR Experimentation", received **best paper runner-up award** at ImmerCom'23 2023
- Awarded **Travel Grant**, ACM SIGCOMM 2023 conference. 2023
- Awarded **distinguished student** in the department of electrical and computer engineering 2019–2022

Teaching Experience

Worcester Polytechnic Institute (WPI), Computer Science Department 2023 - 2024
Teaching Assistant(TA)

- CS 2303 (Systems Programming Concepts) C-term, Spring 2023
- CS 2119 (Application Building with Object-Oriented Concepts) D-term, Spring 2023
- CS 1101 (Introduction to Program Design) A-term, Fall 2023
- CS 4233 (Object-Oriented Analysis and Design) B-term, Fall 2023
- CS 4233 (Object-Oriented Analysis and Design) C-term, Spring 2024
- CS 2102 (Object-Oriented Design concepts) D-term, Spring 2024

UMA University, Electrical and Computer Engineering Department 2021 - 2022

- Lab Assistant, Digital System Lab Fall 2022
- Teaching Assistant, Software Engineering Fall 2021
- Teaching Assistant, Discrete Mathematics Spring 2021 and 2022

Skills

- **Programming Languages:**
  Python, C++, TypeScript, JavaScript
- **Machine learning and Deep learning:**
  PyTorch, Tensorflow, Scikit-learn, Matplotlib, Pandas, Numpy, Jupyter-Notebook
- **Databases:** PostgreSQL, MySQL

- **Operating System:** Microsoft Windows, Debian GNU/Linux
- **Front-end:** Vue Js, Angular, Html, CSS
- **Back-end:** Django, Flask