Mohammad **Hashemi**

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Education

Ph.D. in Computer Science   *Atlanta, Georgia, USA*
DEPARTMENT OF COMPUTER SCIENCE AND INFORMATICS, EMORY UNIVERSITY   *Aug. 2023 - Present*
- **Cumulative GPA: 3.92/4 | M.Sc. Diploma**

B.Sc. in Computer Engineering   *Tehran, Iran*
FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY   *Sep. 2018 - Feb. 2023*
- **Cumulative GPA: 3.85/4**

Research Interests

Machine Learning | Spatial Computing | AI for Healthcare

Publications

Scalable Graph Condensation with Evolving Capabilities   *KDD 2026*
THE THIRTY-SECOND CONFERENCE ON KNOWLEDGE DISCOVERY AND DATA MINING
- S Gong*, **M Hashemi***, J Ni, C Yang, W Jin (* Equal Contribution)
- Under review

A Comprehensive Survey on Graph Reduction: Sparsification, Coarsening, and Condensation [Slides]   *IJCAI 2024*
INTERNATIONAL JOINT CONFERENCE ON ARTIFICIAL INTELLIGENCE
- **M Hashemi**, S Gong, J Ni, W Fan, B. A Prakash, W Jin

Automated Cardiac Coverage Assessment in Cardiovascular Magnetic Resonance Imaging using a Recurrent 3D Dual-Domain Convolutional Network   *Medical Physics*
MEDICAL PHYSICS
- S Nabavi, **M Hashemi**, M Ebrahimi Moghaddam, AA Abin, AF Frangi

Machine learning technique in the north zagros earthquake prediction   *Applied Computing & Geoscience*
APPLIED COMPUTING AND GEOSCIENCES
- S Ommi, **M Hashemi**

A Type-2 Neuro-Fuzzy System with a Novel Learning Method for Parkinson's Disease Diagnosis   *APIN*
APPLIED INTELLIGENCE
- A Salimi-Badr, **M Hashemi**, H Saffari

A Neural-Based Approach to Aid Early Parkinson's Disease Diagnosis   *IKT 2020*
2020 11TH INTERNATIONAL CONFERENCE ON INFORMATION AND KNOWLEDGE TECHNOLOGY (IKT)
- A Salimi-Badr and **M Hashemi**

Honors & Awards

2023	**1st Place**, Best B.Sc. thesis project	*Iran*
2020	**6th Place**, out of 131 undergraduate students studying Computer Engineering	*Iran*
2017	**Passing the first stage**, of Mathematics Olympiad for two years	*Iran*
2016	**5th Place**, Khawarizmi Youth Nationwide Contest as a Robotic Researcher	*Iran*

Experience

RESEARCH EXPERIENCE

Graduate Research Assistant
Emory University

SAPATIAL COMPUTING LAB   *Mar. 2025 - Present*

- Developing novel foundation models for understanding human mobility through geolocation data.
- Under supervision of **Prof. Andreas Zufle**.

Graduate Research Assistant
Emory University

AIMS LAB   *Sep. 2024 - Apr. 2025*

- Developing privacy-preserving predictive models for multi-modal temporal Electronic Health Record (EHR) data
- Rotation project under supervision of **Prof. Li Xiong**.

Graduate Research Assistant
Emory University

MELODY LAB   *Aug. 2023 - Aug. 2024*

- Proposing novel scalable and explainable **Graph Condensation** methods for Graph Neural Networks.
- Rotation project under supervision of **Dr. Wei Jin**.

B.Sc. Thesis
Shahid Beheshti University

IMAGE PROCESSING & DISTRIBUTED SYSTEMS LAB   *Sep. 2022 - Feb. 2023*

- Proposing novel **Deformable Image Registration(DIR) using GANs** for 4D CT lung images.
- Under supervision of **Prof. Mohsen Ebrahimi Moghaddam**.

Research Assistant
Shahid Beheshti University

IMAGE PROCESSING & DISTRIBUTED SYSTEMS LAB   *Feb. 2021 - Mar 2022*

- Proposing and Implementing a novel interpretable framework for Automatic Assessment of Full Left Ventricular Coverage in Cardiac Cine Magnetic Resonance Imaging with **3D CNNs equipped with explainable machine learning methods. The paper of this work is under review. [Link]**
- Under supervision of **Prof. Mohsen Ebrahimi Moghaddam** and his PhD student, **Shahabedin Nabavi**

Research Assistant
Shahid Beheshti University

RoIAA (ROBOTICS & INTELLIGENT AUTONOMOUS AGENTS) LAB   *Oct. 2020 - Jun. 2021*

- Proposing various Recurrent Neural Networks (RNNs) such as LSTMs, and GRU for sequence learning to have early detection of Parkinson's Disease. This work was **submitted as a conference paper and published in IEEE [Link]**.
- In another research project, an interpretable classifier using an interval type-2 fuzzy neural network (IT2FCNN) for detecting patients suffering from Parkinson's Disease was proposed. This work also **resulted in a paper [Link]**.
- Under supervision of **Dr. Armin Salimi-Badr**

WORK EXPERIENCES

Machine Learning Mentor
Tehran, Iran

RAHNEMA COLLEGE CO.   *Jan. 2022 - Mar 2022*

- Assisting several interns in carrying out a project in the field of Reinforcement Learning (RL). The project aimed to propose **a recommender system based on batch Reinforcement Learning** algorithms.

Machine Learning Intern
Tehran, Iran

RAHNEMA COLLEGE CO.   *May. 2021 - Jul. 2021*

- Developing a web application powered by the ability to perform **Web Crawler Detection** using unsupervised algorithms for the Sanjagh Co. website which is one of the biggest e-commerce platform in Iran. [**Code**]
- Under supervision of **Dr. Seyed Ali Osia**, **Dr. Mahmood Karimian**, **Yasin Orouskhani**.

Services

CONFERENCE EXTERNAL REVIEWER

2024	**International Conference on Pattern Recognition**, (ICPR)
2024	**AAAI Conference on Artificial Intelligence**, (AAAI)
2024	**The International Conference on Learning Representations**, (ICLR)

VOLUNTEERING

2024	**Web Chair @ WWW'24 Workshop - Data-centric Artificial Intelligence**, (DCAI)