Omid Reza Heidari

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EDUCATION

Concordia University, Montreal, Canada   2023 — Present
Master of Science in Computer Science   GPA: 3.43/4.00

Islamic Azad University, Zanjan, Iran   2017 — 2022
Bachelor of Engineering in Computer Engineering   GPA: 3.47/4.00

RESEARCH INTERESTS

Computer Vision; Multimodal Vision-Language; NLP; Retrieval Augmented Generation; Multimodal AI Agents

PUBLICATIONS

2024

- **Omid Reza Heidari***, Li Gu*, Jiahao Nick Li*, Yang Wang. Retrieval Augmented Generation for Natural Language Query in Egocentric Videos. Work in progress.

2023

- **Omid Reza Heidari**, Ahmadreza Zakerian Zadeh, Mohsen Dadashi. Assessment of Structural Connectivity and Brain Volumes after tDCS in Stroke: A Machine-learning Method.

Awards and Honors

Best Poster Award   Apr 2024
Mila - Quebec AI Institute
Presented for the poster titled "Retrieval Augmented Generation for Natural Language Query in Egocentric Videos"

ACADEMIC EXPERIENCE

Concordia University   Montreal, Canada
Teaching Assistant   Jan 2024 — Present

- COMP6321 - Machine Learning
- COMP352 - Data Structures and Algorithms
- COMP353 - Databases
- COEN352 - Data Structures and Algorithms

Zanjan University of Medical Science   Zanjan, Iran
Data Reserach Analyst   Jul 2022 — Jan 2023

- Conducted research in the area of Machine Learning and Electroencephalogram signals under the supervision of Dr. Michael Nitsche and Dr. Mohsen Dadashi.
- Collected and preprocessed data to be evaluated with Machine Learning models.
- Utilized several approaches, such as Welch, Convolution, and Fourier transform, to compute connectivity, power, and amplitude

Sharif University of Technology   Tehran, Iran
Teaching Assistant   Sep 2022 — Feb 2023

- CE717 - Machine Learning

Zanjan University   Zanjan, Iran
Teaching Assistant   Sep 2021 — Jun 2022

- Principles Of Database Design
- Digital Logic Design
- Advanced Programming

SELECTED COURSES

Master's Courses

- Links Between Computer Vision and Language
- Representation Learning
- Machine Learning

Bachelor's Courses

- Artificial Intelligence and Expert Systems
- Advanced Database

LANGUAGE PROFICIENCY

IELTS (Academic): 7

Listening: 7.5 — Reading: 7
Speaking: 6.5 — Writing: 6
Test date: Nov 2022

French:

Listening: A2— Reading: A2
Speaking: A2 — Writing: A2

SKILLS

- **Programming:** : Python, MATLAB, JavaScript
- **Frameworks:** PyTorch, Scikit-learn
- **Databases:** Databases: MySQL, PostgreSQL, Redis, MongoDB
- **Services:** AWS, RabbitMQ