

Mohammadreza Mofayezi

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Education

Sharif University of Technology

Tehran, Iran

Bachelor of Science in Computer Engineering

Sep. 2019 - Current

- **GPA:** 18.39/20.0 (Major: 18.69/20.0 | Last Year: 19.01/20.0)
- **Selected Courses:** Artificial Intelligence, Machine Learning, Modern Information Retrieval, Bioinformatics, Linear Algebra, Probability and Statistics, Design of Algorithms
- **Online Courses:** CS231n: Convolutional Neural Networks for Visual Recognition - Stanford University, Fundamentals of Reinforcement Learning - University of Alberta ([Coursera certification](#))

Publications

- Mohammadreza Mofayezi and Yasamin Medghalchi. Benchmarking robustness to text-guided corruptions. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops*, 2023
- Saeed Saadatnejad, Ali Rasekh, Mohammadreza Mofayezi, Yasamin Medghalchi, Sara Rajabzadeh, Taylor Mordan, and Alexandre Alahi. A generic diffusion-based approach for 3d human pose prediction in the wild. In *International Conference on Robotics and Automation (ICRA)*, 2023

Research & Work Experiences

Generative Vision and Robust Learning Research Group

MPII, Germany

Undergraduate Research Assistant Under the Supervision of Prof. Adam Kortylewski

Dec. 2022 - Mar. 2023

- Proposed a novel benchmark for evaluating the robustness of image classifiers to text-guided corruptions.
- Utilized diffusion models to edit images to different domains.

VITA: Visual Intelligence for Transportation

EPFL, Switzerland

Undergraduate Research Assistant Under the Supervision of Prof. Alexandre Alahi

Oct. 2021 - Jul. 2022

- Formulated the task of human motion synthesis with a diffusion process that starts from a Gaussian noise and generates a human pose.
- Proposed a novel deep generative diffusion model for human motion reconstruction and prediction from incomplete and noisy data that outperforms SOTA models.
- The work resulted in a paper accepted at ICRA 2023 and NeurIPS 2022 Workshop on Score-Based Methods.

MadLlama

Tehran, Iran

Augmented Reality Developer

Oct. 2020 - Jan. 2022

- Worked on Mobile AR Games with ARCore, ARKit and Unity.
- Published 2 Games to App Store.

Voluntary Teaching Experiences

Artificial Intelligence, Instructor: Prof. Rohban

Spring 2022 - Fall 2023

Head TA of the course (S2023, F2023). Designed and graded assignments (S2022 and F2022).

Probability and Statistics, Instructor: Prof. Sharifi-Zarchi

Fall 2021

Designed and graded assignments, quiz and created educational materials.

Data Structures and Algorithms, Instructor: Prof. Safarnejad

Fall 2021

Designed and graded assignments.

Fundamentals of Programming (C, C++), Instructor: Prof. Fazli and Fakouri

Fall 2020, Fall 2021

Designed and graded assignments. Created reading materials.

Research Interests

Computer Vision

- Representation Learning
- Generative Models
- Robust Learning

Natural Language Processing

- Multi-Modal NLP
- Causal Reasoning

Other Experiences

Machine Learning Challenge (MLC)

Organized the first Machine Learning Challenge in AI course of Sharif University of Technology.

Tehran, Iran

June 2023

Reviewer at ICML 2023

Reviewed paper for ICML 2023 Workshop on Structured Probabilistic Inference & Generative Modeling

ICML 2023

June 2023

Made in Lobby 2021

Created technical content about Unity Engine for the Game Design Workshop at Made in Lobby.

Tehran, Iran

Summer 2021

Gamein 2020 Contest

As a member of the Technical Staff, developed a large-scale multiplayer game with Unity3D and C#

Tehran, Iran

Summer 2020 - Fall 2020

Top Projects

RobuText

CVPRW 2023

- Official implementation of "Benchmarking Robustness to Text-Guided Corruptions". [GitHub Link](#)

MPII, Germany

Spring 2023

DePOSit

ICRA 2023

- Official implementation of "A generic diffusion-based approach for 3D human pose prediction in the wild". [GitHub Link](#)

EPFL, Switzerland

Fall 2022

Hand Gesture Detection

Hardware Lab Course, Prof. Ejlali

- Developed a hand gesture detection system on Raspberry Pi. [GitHub Link](#)

Tehran, Iran

Spring 2023

WeTube

Computer Networks Course, Prof. Jafari

- Developed an online streaming app with Django framework. [GitHub Link](#)

Tehran, Iran

Spring 2022

Social Network

Data Structures and Algorithms Course, Prof. Safarnejad

- Designed a simple and fast method of representing social network graphs in Python.
- Implemented a fast cache reply system using the heapq library. [Github Link](#)

Tehran, Iran

Spring 2021

Honors and Awards

2019 **Winner**, 2nd Team in Spaghetti Code Contest

2019 **Top 20**, University Entrance Exam; 1st rank among more than 50k students, 15th among 250k students

Skills

Programming	Python, C#, C/C++, Java, R, SQL.
Machine Learning Tools	PyTorch, Tensorflow, NumPy, Pandas, Scikit-learn, Matplotlib.
Game Engine	Unity for Game and Cinematic.
Data Management & Databases	PostgreSQL, MySQL, MongoDB, Redis.
Graphical Design Tools	CorelDraw, Adobe Photoshop, Adobe Illustrator.
Frameworks & Programming Knowledge	Spring Framework, Rest API, WebSocket.
Miscellaneous	Linux, \LaTeX , Microsoft Office, Git.

Languages

English	Professional proficiency
Persian	Native proficiency
German	Elementary proficiency