

Alireza Ghafouri

Education

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 alireza-ghafouri.github.io

 alirezaghafouri
 Alireza-Ghafouri

M.Sc. in Computer Engineering - Artificial Intelligence

Master's degree program

Thesis: *Semi-Supervised representation learning using deep generative models*

Supervisors: Dr. Reshad Hosseini, Dr. Mostafa Tavassolipour

Final Grade: 19.30/20 (4/4), **Ranked 2nd**

University of Tehran

Sep 2021 – Sep 2024

B.Sc. in Computer Engineering

Bachelor's degree program

Final grade: 18.33/20 (3.7/4), **Ranked 2nd**

University of Kashan

Sep 2017 – Sep 2021

Research Interests

✓ Generative AI ✓ Trustworthy AI ✓ Multimodal Learning ✓ Representation Learning

Research/Work Experience

Computational Audio-Vision Lab

Jul 2023 – Present

University of Tehran

Advisers: Dr. Reshad Hosseini, Dr. Mostafa Tavassolipour

- Investigated and benchmarked diverse deep generative architectures for computer vision tasks, focusing on representation quality and model robustness.
- Designed and evaluated semi-supervised representation learning frameworks to enhance robustness in low-label regimes.

Neural marketing using eye movements Prediction

Jan 2023 – Jun 2023

Avir Artificial Intelligence Center

Research Adviser: Dr. Ramin Toosi

- Implemented and benchmarked video saliency prediction models using proprietary eye-tracking datasets.
- Analyzed eye-movement data to model cognitive mechanisms underlying customer purchase decisions.

Publications

VAE-FixMatch: Towards Robust Representation Learning in Semi-Supervised Settings

in final preparation for submission

Alireza Ghafouri, Reshad Hosseini, Mostafa Tavassolipour

University of Tehran

Honors & Awards

NMA Admission	Selected as TA and Lead TA at Neuromatch Academy	2023-2025
Ranked 2nd	M.Sc. in Artificial Intelligence cohort, University of Tehran	2024
Ranked 19th	National Master's Entrance Exam (Among +13,000 Participants)	2021
Ranked 10th	National Student Scientific Olympiad	2021
Ranked 2nd	B.Sc. in Computer Engineering cohort, University of Kashan	2021
Distinguished Student	Awarded by University Exceptional Talents Committee	2020

Skills

Programming Languages	Python (Pytorch, Tensorflow, Pandas, NumPy, Scikit-Learn, Matplotlib, NLTK, etc.), R, SQL Persian (Native), English (C1 - TOEFL IBT Overall best Score: 106 (Reading: 27, Listening: 26, Speaking: 25, Writing: 28))
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Selected Courses

• Machine learning	20/20 (4/4)	• Data Analysis	19/20 (4/4)
• Deep Learning and Applications	19.25/20 (4/4)	• Statistical Inference	18/20 (4/4)
• Natural Language Processing	18.40/20 (4/4)	• Reinforcement Learning	20/20 (4/4)
• Artificial Intelligence	19.50/20 (4/4)	• Computational Intelligence	20/20 (4/4)

Teaching Experience

Analysis and Design of Deep Neural Networks (TA)	Fall 2025
Dr. Babak N Araabi, Dr. Ahmad Kalhor	University of Tehran
Deep Learning (Lead TA) 🧑	Summer 2025
Global collaboration	Neuromatch Academy
Trustworthy AI (TA + Guest Instructor)	Spring 2024
Dr. Mostafa Tavassolipour	University of Tehran
Natural Language Processing (TA)	Spring 2024
Dr. Javad Salimi Sartakhti	University of Kashan
Statistical Inference (TA)	Fall 2023
Dr. Mohammadreza Abolghasemi	University of Tehran
Deep Generative Models (TA)	Fall 2023
Dr. Mostafa Tavassolipour, Dr. MohammadAmin Sadeghi	University of Tehran
Computational Neuroscience (TA & Lead TA) 🧑 🧑	Summer 2023,2024
Global collaboration	Neuromatch Academy
Deep Learning and Applications (TA)	Spring 2023
Dr. Reshad Hosseini	University of Tehran
Artificial Intelligence (Head TA)	Spring 2022
Dr. Hossein Ebrahimpour	University of Kashan
Machine Learning (TA) 🎬 🎬	Spring 2022, 2023
Dr. Mohammadreza Abolghasemi, Dr. Mostafa Tavassolipour	University of Tehran

Academic Projects

Deep Learning and Applications	Spring 2022
Dr. Reshad Hosseini	University of Tehran
• Deep fully connected neural network implementation (from scratch using numpy)	
• Saliency map prediction using deep neural networks 🤖	
• Implementation of a deep fully connected network for inverting visual representations of a CNN 🤖	
• Brain tumor image segmentation Using U-net architecture 🤖	
• Part of speech tagging for Persian Language using deep recurrent model 🤖	
Natural Language Processing	Spring 2022
Dr. Heshaam Faili, Dr. Yadollah Yaghoobzadeh	University of Tehran
• Applying Naive Bayes classification for Spam and Truth detection.	
• Conducting POS tagging and Named Entity Recognition (NER) tasks on the Penn Treebank dataset. 🤖	
• Executed multilingual classification and Persian NLI tasks with BERT-based models.	
• Performing question-answering task on a Persian dataset using a BERT-based model.	
Data Analysis	Fall 2021
Dr. MohammadAmin Sadeghi	University of Tehran
• Modeled COVID-19 infection trends using statistical inference techniques and public datasets.	
• Scraping Alibaba and MrBilit tickets and analysing the prices	
• Web crawling and data cleaning: Obtaining Laptop Listings from Digikala	
Social Networks	Fall 2022
Dr.Masoud Asadpour	University of Tehran
• Persian Users' Graph of Tweets Network Analysis in Iran's 2022 Protests	

References

Dr. Reshad Hosseini	Dr. Mostafa Tavassolipour	Dr. Javad Salimi Sartakhti
📍 University of Tehran	📍 University of Tehran	📍 University of Kashan
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