

Alireza Ghafouri

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in alirezaghafouri
🔗 Alireza-Ghafouri

Education

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 Experience

Computational Audio-Vision Lab ([Website](#))

Advisers: [Dr. Reshad Hosseini](#), [Dr. Mostafa Tavassolipour](#)

Jul 2023 – Present

University of Tehran

- Investigated diverse deep generative model architectures and analyzed their applications to computer vision tasks.
- Developed and evaluated semi-supervised representation learning methods for robustness across limited-label datasets.

Neural marketing using eye movements Prediction ([Website](#))

Research Adviser: [Dr. Ramin Toosi](#)

Jan 2023 – Jun 2023

[Avir Artificial Intelligence Center](#)

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

Recommendation Systems ([Seminar Report](#))

Research Advisers: [Dr. Abdol-Hossein Vahabie](#), [Zahra Ebrahimian](#)

Sep 2022 – Mar 2023

University of Tehran

- Performed literature review and comparative study of video-based recommendation algorithms.

Publications

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

Alireza Ghafouri, Reshad Hosseini, Mostafa Tavassolipour

in final preparation for submission

University of Tehran

Honors & Awards

NMA Admission	Served as TA and Lead TA at Neuromatch Academy	2023-2025
Ranked 2nd	The master's degree program	2024
Ranked 19th	National Master's Entrance Exam	2021
Ranked 10th	Student Scientific Olympiad of the country	2021
Ranked 2nd	The bachelor's degree program	2021
Straight M.Sc. Admission	Offered by three top universities for exceptional talent	2021
Exceptional Talents	Awarded as a Distinguished Student by The University Committee	2020
Tuition Fee Exemption	Bachelor & Master's level studies	2017 & 2021
Among the top 2%	National Universities Bachelor's Entrance Exam	2017

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

Machine Learning (TA) - [Youtube1, Youtube2]

Dr. Mohammadreza Abolghasemi, Dr. Mostafa Tavassolipour

Artificial Intelligence (Head TA)

Dr. Hossein Ebrahimpour

Deep Learning and Applications (TA)

Dr. Reshad Hosseini

Computational Neuroscience (TA & Lead TA) - [Certificate, Certificate]

Global collaboration

Deep Generative Models (TA)

Dr. Mostafa Tavassolipour, Dr. MohammadAmin Sadeghi

Statistical Inference (TA)

Dr. Mohammadreza Abolghasemi

Natural Language Processing (TA)

Dr. Javad Salimi Sartakhti

Trustworthy AI (TA + Guest Instructor)

Dr. Mostafa Tavassolipour

Deep Learning (Lead TA) - [Certificate]

Global collaboration

Analysis and Design of Deep Neural Networks (TA)

Dr. Babak N Araabi, Dr. Ahmad Kalhor

Spring 2022, 2023

University of Tehran

Spring 2022

University of Kashan

Spring 2023

University of Tehran

Summer 2023, 2024

Neuromatch Academy

Fall 2023

University of Tehran

Fall 2023

University of Tehran

Spring 2024

University of Kashan

Spring 2024

University of Tehran

Summer 2025

Neuromatch Academy

Fall 2025

University of Tehran





Academic Projects

Deep Learning and Applications

Dr. Reshad Hosseini

Spring 2022

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

Dr. Heshaam Faili, Dr. Yadollah Yaghoobzadeh

Spring 2022

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

Dr. MohammadAmin Sadeghi

Fall 2021

University of Tehran

- Analysing Corona virus infection
- Scraping Alibaba and MrBilit tickets and analysing the prices
- Web crawling and data cleaning: Obtaining Laptop Listings from Digikala

Social Networks

Dr. Masoud Asadpour

Fall 2022

University of Tehran

- Persian Users' Graph of Tweets Network Analysis in Iran's 2022 Protests

Skills

Programming

Python (Pytorch, Tensorflow, Pandas, NumPy, Scikit-Learn, Matplotlib, NLTK, etc.), R, SQL

Soft Skills

Leadership, Team Work, Problem Solving, Time Management, Adaptability/Flexibility

Languages

Persian (Native), English (C1 - TOEFL IBT Overall best Score: 106 (Reading: 27, Listening: 26, Speaking: 25, Writing: 28) - last Score: 104 (R: 27, L: 26, S: 23, W: 28)

References

Dr. Reshad Hosseini

 University of Tehran

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Dr. Mostafa Tavassolipour

 University of Tehran

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Dr. Javad Salimi Sartakhti

 University of Kashan

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