

Farzan Rahmani

Computer Engineering Student

♥ Tehran, Iran
♥ GitHub in LinkedIn

EDUCATION

Sharif University of Technology, Tehran, Iran

2024 - Present

Master of Science in Computer Engineering Major: Artificial Intelligence and Robotics GPA: 4/4 (Grade: 20/20 in Iranian Scale)

Supervisor: Prof. Dr. Mohammad Hossein Rohban Top University in Iran (QS World University Rankings)

Iran University of Science and Technology, Tehran, Iran

2020 - 2024

Bachelor of Science in Computer Engineering GPA: 4/4 (Grade: 19.66/20 in Iranian Scale)

Thesis: Illusory VQA: Benchmarking and Enhancing Multimodal Models on Visual Illusions

Supervisor: Prof. Dr. Sauleh Eetemadi

Among the Top 4 Universities in Iran (QS World University Rankings)

Shahid Ahmadi Roshan High School, Tehran, Iran

2017 - 2020

Diploma in Mathematics and Physics

GPA: 4/4 (Grade: 19.98/20 in Iranian Scale)

HONORS & AWARDS

- Ranked 2nd and received Silver Medal in the 29th National Scientific Olympiad in Computer Engineering of Iran - 2024
- Ranked 1st (1 out of 101) among Bachelor of Science in Computer Engineering students (Class of 2020), Iran University of Science and Technology July 2024
- Received honorary Master's admission from three universities including Sharif University of Technology, Amirkabir University of Technology (Tehran Polytechnic), and Iran University of Science and Technology - 2024
- $\bullet\,$ Finalist in the 28th National Scientific Olympiad in Computer Engineering of Iran 2023
- \bullet Ranked within the top 0.5% of the Iranian University Entrance Exam for Bachelor degree (Konkur) in Mathematics and Physics 2020

Research Interests

- Artificial Intelligence
- Machine Learning
- Natural Language Processing

- Deep Learning
- Computer Vision & Image Processing
- Large Language Models

RESEARCH EXPERIENCE

Research Assistant Oct 2024 - Present

Robust and Interpretable Machine Learning Laboratory, Sharif University of Technology Supervisor: Prof. Dr. Mohammad Hossein Rohban

- Conducted research on Machine Learning and Deep Learning.
- Participated in weekly journal clubs to review articles, present new materials in AI and ML, and engage in academic discussions.
- Gained Experience in solving research problems and developing Vision-Language Models.

Research Assistant July 2023 - Oct 2024

Natural Language Processing Laboratory, Iran University of Science and Technology Supervisor: Prof. Dr. Sauleh Eetemadi

- Conducted research on Visual Question Answering, focusing on deep learning, natural language processing, computer vision, visual illusions, and multimodal language models.
- Resulted in a paper accepted at the NeurIPS 2024 Workshop on Multimodal Algorithmic Reasoning titled "Illusory VQA: Benchmarking and Enhancing Multimodal Models on Visual Illusions".
- Developed strong teamwork skills through collaborative research projects.
- Participated in periodic meetings to review articles, present new materials in AI and NLP, and engage in academic discussions.
- Gained hands-on experience working with various Large Language Models (LLMs) and Multimodal Large Language Models (MLLMs).

WORK EXPERIENCE

- Web Development Intern: August 2021 November 2021
 - Kanoon Farhangi Amoozesh Tehran: Technologies: HTML5, ASP.NET, CSS, C#
- Software Developer: July 2022 December 2022
 - Advanced Big Data Analysis Laboratory, Iran University of Science and Technology Tehran: Technologies: Bootstrap, HTML5, JavaScript, Python, Django

TEACHING EXPERIENCE

• Teaching Assistant Oct 2024 - Feb 2025

- Course: Fundamentals of Deep Learning (DL03041)
- Instructor: Prof. Dr. Marzieh Davoodabadi Farahani
- Teaching Assistant Oct 2024 Feb 2025
 - Course: Fundamentals of Computational Intelligence (CI03041)
 - Instructor: Prof. Dr. Nasser Mozayani
- Head Teaching Assistant Feb 2024 Jul 2024
 - Course: Systems Analysis and Design (SAD02032)
 - Instructor: Prof. Dr. Mehrdad Ashtiani
- Teaching Assistant Feb 2024 Jul 2024
 - Course: Discrete Mathematics (DM02032)
 - Instructor: Prof. Dr. Vesal Hakami
- Teaching Assistant Oct 2023 Feb 2024
 - Course: Logical Circuits (LC02031)
 - Instructor: Prof. Dr. Amir Mahdi Hosseini Monazzah
- Teaching Assistant Oct 2023 Feb 2024
 - Course: Operating Systems (OS02031)
 - Instructor: Prof. Dr. Vahid Azahari
- Head Teaching Assistant Sep 2023 Feb 2024

- Course: Software Engineering (SE02031)
- Instructors: Prof. Dr. Behrouz Minaei-Bidgoli, Prof. Dr. Mehrdad Ashtiani

• Teaching Assistant

Sep 2023 - Feb 2024

- Course: Operating Systems (OS02031)
- Instructor: Prof. Dr. Reza Entezari-Maleki

• Teaching Assistant

Feb 2023 - Jul 2023

- Course: Theory of Languages and Automata (TLA01022)
- Instructor: Prof. Dr. Reza Entezari-Maleki

• Head Teaching Assistant

Feb 2023 - Jul 2023

- Course: Fundamentals of Database Design (DB01022)
- Instructor: Prof. Dr. Hossein Rahmani

• Teaching Assistant

Feb 2023 - Jul 2023

- Course: Discrete Mathematics (DM01022)
- Instructor: Prof. Dr. Marzieh Davoodabadi Farahani

• Teaching Assistant

Sep 2022 - Feb 2023

- Course: Data Structures
- Instructor: Prof. Dr. Sauleh Eetemadi

• Teaching Assistant

Feb 2022 - Jul 2022

- Course: Advanced Computer Programming
- Instructor: Prof. Dr. Sauleh Eetemadi

• Teaching Assistant

Sep 2021 - Feb 2022

- Course: Fundamentals of Computer Programming
- Instructor: Prof. Dr. Sauleh Eetemadi

TECHNICAL SKILLS

- Programming Languages: Python, C, C++, C#, JavaScript
- Machine Learning: Supervised Learning (Linear Regression, Logistic Regression, Neural Networks, Decision Trees, Random Forests), Unsupervised Learning (Clustering, PCA, Anomaly detection), Recommender Systems, Reinforcement Learning
- $\bullet \ \, \mathbf{Deep} \ \, \mathbf{Learning:} \ \, \mathbf{Convolutional} \ \, \mathbf{Neural} \ \, \mathbf{Networks,} \ \, \mathbf{Recurrent} \ \, \mathbf{Neural} \ \, \mathbf{Networks,} \ \, \mathbf{Transformers,} \ \, \mathbf{LLMs}$
- AI Packages: PyTorch, TensorFlow, Keras, Hugging Face, Scikit-learn, Numpy, Pandas, Jupyter notebooks
- DevOps Tools: Docker, Git, GitHub Actions, CI/CD, Azure Pipelines, YAML
- Web Development: HTML5, CSS3, React, Django
- Other Technologies: Linux, Microsoft Office 365, .NET, LATEX

CERTIFICATIONS

- Machine Learning: Coursera (link)
- Supervised Machine Learning: Regression and Classification: Coursera (link)
- Advanced Learning Algorithms: Coursera (link)
- Unsupervised Learning, Recommenders, Reinforcement Learning: Coursera (link)
- Advanced Algorithms and Complexity: Coursera (link)
- Algorithms on Strings: Coursera (link)
- Algorithms on Graphs: Coursera (link)
- Data Structures: Coursera (link)
- Algorithmic Toolbox: Coursera (link)

PROJECTS

- System Analysis and Design & Software Engineering
- Fall 2022 Summer 2023
- o Technologies: DevOps, GitHub Actions, YAML, Docker, React, CSS, HTML
- o Role: Front-end Developer
- Supervisor: Dr. Mehrdad Ashtiani (System Analysis and Design), Dr. Behrooz Minaei Bidgoli (Software Engineering)
 - Link: GitHub Repository
- Fundamentals of Computer Programming: Supervisor: Prof. Dr. Sauleh Eetemadi, February 2020 (link)
- Advanced Computer Programming: Supervisor: Prof. Dr. Sauleh Eetemadi, June 2021 (link)
- Music Creation with Computer Programming: Supervisor: Prof. Dr. Sauleh Eetemadi, July 2021 (link)
- Logic Circuits: Supervisor: Prof. Dr. Amir Mahdi Hosseini Manzeh, December 2021 (link)
- Fundamentals of Database Design: Supervisor: Prof. Dr. Hossein Rahmani, July 2022 (link)
- Theory of Languages and Automata: Supervisor: Prof. Dr. Reza Entezari-Maleki, July 2022 (link)
- Artificial Intelligence and Expert Systems: Supervisor: Prof. Dr. Mohammadreza Mohammadi, February 2022 (link)
- Operating Systems: Supervisor: Prof. Dr. Reza Entezari-Maleki, February 2022 (link)
- Computer Vision: Supervisor: Prof. Dr. Mohammadreza Mohammadi, July 2023 (link)
- Computer-Aided Design of Digital Systems: Supervisor: Prof. Dr. Maryam Khodadadi, July 2023 (link)
- Data Transmission: Supervisor: Prof. Dr. Abolfazl Dianat, July 2023 (link)
- Deep Learning: Supervisor: Prof. Dr. Marzieh Davoudabadi, December 2023 (link)
- Fundamentals of Compiler Design: Supervisor: Prof. Dr. Saeed Parsa, December 2023 (link)
- Natural Language Processing: Supervisor: Prof. Dr. Marzieh Davoudabadi, July 2024 (link)
- Implementation of text generation using Retrieval-augmented generation on organizational reports: Supervisor: Prof. Dr. Marzieh Davoudabadi, July 2024 (link)
- Security of Computer Systems: Supervisor: Prof. Dr. Abolfazl Dianat, July 2024 (link)

SOFT SKILLS

• Humor

• Problem Solving

• Creativity and Ideation

• Perseverance

• Public Relations

• Self-confidence

• Resilience

LANGUAGES

• Persian: Native

• English: Fluent

• Arabic: Basic

• French: Willing to learn

IMPORTANT GRADES

- Natural Language Processing: Grade: 20/20 in Iranian Scale (Prof. Dr. Marzieh Davoudabadi)
- Machine Learning: Grade: 20/20 in Iranian Scale (Prof. Dr. Ali Sharifi-Zarchi)
- Deep Learning: Grade: 20/20 in Iranian Scale (Prof. Dr. Marzieh Davoudabadi)
- Computer Vision: Grade: 20/20 in Iranian Scale (Prof. Dr. Mohammadreza Mohammadi)
- Intelligent Analysis of Biomedical Images: Grade: 20/20 in Iranian Scale (Prof. Dr. Mohammad Hossein Rohban)
- Fundamentals of Computational Intelligence: Grade: 20/20 in Iranian Scale (Prof. Dr. Nasser Mozayeni)
- Artificial Intelligence and Expert Systems: Grade: 20/20 in Iranian Scale (Prof. Dr. Mohammadreza Mohammadi)
- Introduction to Bioinformatics: Grade: 20/20 in Iranian Scale (Prof. Dr. Ali Sharifi-Zarchi)
- Algorithm Analysis and Design: Grade: 20/20 in Iranian Scale (Prof. Dr. Sauleh Eetemadi)
- Data Structures: Grade: 20/20 in Iranian Scale (Prof. Dr. Sauleh Eetemadi)
- Theory of Languages and Automata: Grade: 20/20 in Iranian Scale (Prof. Dr. Reza Entezari-Maleki)
- Operating Systems: Grade: 20/20 in Iranian Scale (Prof. Dr. Reza Entezari-Maleki)
- Software Engineering: Grade: 20/20 in Iranian Scale (Prof. Dr. Behrooz Minaei Bidgoli)
- Systems Analysis and Design: Grade: 20/20 in Iranian Scale (Prof. Dr. Mehrdad Ashtiani)
- Fundamentals of Compiler Design Project: Grade: 20/20 in Iranian Scale (Prof. Dr. Saeed Parsa)
- Security of Computer Systems: Grade: 20/20 in Iranian Scale (Prof. Dr. Abolfazl Dianat)
- Computer Architecture: Grade: 20/20 in Iranian Scale (Prof. Dr. Amir Mahdi Mnezzeh)
- Fundamentals of Database Design: Grade: 20/20 in Iranian Scale (Prof. Dr. Hossein Rahmani)
- Engineering Mathematics: Grade: 20/20 in Iranian Scale (Prof. Dr. Narges Taheri)
- Graph Theory and Algorithms: Grade: 20/20 in Iranian Scale (Prof. Dr. Farzaneh Ghayour Baghbani)
- Computer-Aided Design of Digital Systems: Grade: 20/20 in Iranian Scale (Prof. Dr. Maryam Khodadadi)
- Data Transmission: Grade: 20/20 in Iranian Scale (Prof. Dr. Abolfazl Dianat)
- Advanced Computer Programming: Grade: 20/20 in Iranian Scale (Prof. Dr. Sauleh Eetemadi)
- Fundamentals of Computer Programming: Grade: 20/20 in Iranian Scale (Prof. Dr. Sauleh Eetemadi)

EXTRACURRICULAR ACTIVITIES

• Volunteer Member 2022 - 2024

- Computer Engineering Scientific Association
- Computer Engineering Department, Iran University of Science and Technology, Tehran, Iran

May 2024

Honorary Member
 Computer Engineering Scientific Association

- The 12th Iran University of Science and Technology Festival of Harekat