

Education

- IUST University** (among the top 4 universities in Iran) Tehran, Iran
B.Sc. in Computer Engineering at Iran University of Science & Technology 2021 – Present
- Thesis: **RNA structure prediction using deep learning**
 - GPA of the Last Two Years: **3.66/4.0** (17.37/20.0 in Iranian Scale)
 - Degree anticipated Feb 2026
 - Ranked Among **Top 10%** GPA in my class
 - Selected Courses: Algorithms (A+), Computational Intelligence (A), Microprocessor and Assembly Languages (A), Signals and Systems (A), Engineering Probability and Statistics (A), System Analysis and Design (A), Operating Systems (A–)
- SBUK University** Kerman, Iran
Doctor of Veterinary Medicine (D.V.M.) at University of Kerman 2018 – 2021
- Completed three years of the D.V.M. program before transitioning to Computer
 - Gained foundational knowledge in core **biological sciences**
 - **Voluntarily withdrew** to pursue interests in Computer Engineering
- High School Diploma - Biology** Rafsanjan, Iran
National Organization for Development of Exceptional Talents (**Sampad**) 2014 – 2018
- **GPA: 4/4**
 - **Sampad** recruits students for middle and high schools through a two-step set of exams at each level. The organization aims to provide a unique educational environment for exceptionally talented students.

Research Interests

- Machine Learning for Biology
- Computational Biology
- Bioinformatics
- Drug Discovery
- RNA and Protein Structure Prediction
- Deep Learning in Healthcare

Publications

- Predicting RNA 3D Structures from Sequence Using Machine Learning** in Preparation
Authors: **Ali Alizadeh**, Reza Entezari-Maleki

Research Experience

- Research Assistant in Dr. Entezari's Lab** IUST University
Bachelor Thesis, School of Computer Engineering Sept 2024 - present
- Supervisor: Dr. Reza Entezari-Maleki
 - Worked on a variety of academic projects
 - Academic paper: RNA structure prediction using deep learning
 - Developed and implemented machine and deep learning models for RNA-related research, using frameworks such as PyTorch, PyTorch Geometric, Keras, TensorFlow, Scikit-learn and Pandas

Skills

- **Programming Languages and Technologies:** Python, Golang, C, C++, C#, Js, SQL, PostgreSQL
- **Libraries and Frameworks:** PyTorch, PyTorch Geometric, Keras, TensorFlow, Scikit-learn, OpenCV, NumPy, Pandas, Matplotlib, Django, React.js
- **Environments and Tools:** Linux (Ubuntu), Git, Postman, Docker, Terraform, Bash

Teaching & Industrial Experience

Teaching Assistant

School of Computer Engineering

IUST University
Sept 2022 - Jan 2026

- **Fundamentals of Programming** - Instructor: Dr. Mehrdad Ashtiani - Spring 2025
- **Advanced Programming** - Instructor: Dr. Marzieh Maleki - Spring 2025
- **Computer Architecture** - Instructor: Dr. Mehdi Hosseini Monazzah - Spring 2025
- **Design and Analysis of Algorithms** - Instructor: Dr. Farzaneh Ghayour Baghbani - Spring 2025
- **Operating system lab** - Instructor: Dr. Reza Entezari-Maleki - Spring 2025
- **System Analysis and Design** - Instructor: Dr. Mehrdad Ashtiani - Fall 2024
- **Formal Languages and Automata Theory** - Instructor: Dr. Farzaneh Ghayour Baghbani - Spring 2024
- **Principles of Database Design** - Instructor: Dr. Hossein Rahmani - Spring 2024
- **Fundamentals of Programming** - Instructor: Dr. Tayebe Rafiei - Fall 2022

Software Engineer Intern

Back-End Developer Internship

System Group, Tehran
Summer 2024

- **Technologies:** C# and .NET Framework

Projects

NoCodi.ir

Software Engineering Course Project – [Nocodi.ir](#)

IUST University
Spring 2025

- Developed a responsive website using React.js and Django REST Framework
- Designed and developed a responsive frontend using React.js, leveraging Redux for state management and Material-UI for a consistent, user-friendly interface – [GitHub](#)
- Built a RESTful API backend with Django REST Framework, incorporating JWT authentication, role-based access control, and PostgreSQL for data persistence – [GitHub](#)

Seven Apply

System Analysis and Design Course Project

IUST University
Spring 2024

- Built a full-stack website with React.js frontend and Django backend.
- Developed the frontend with React.js, implementing component-based architecture and integrating REST APIs for dynamic data rendering – [GitHub](#)
- Implemented the backend with Django, including database schema design, API endpoints, and user authentication modules – [GitHub](#)

Domain-Specific Language for Clustering Algorithms

Compiler Design Project – [GitHub](#)

IUST University
Spring 2024

- Designed and implemented a DSL to simplify data clustering workflows using ANTLR
- Supported multiple clustering algorithms (K-Means, DBSCAN, Spectral, Agglomerative)
- Built custom grammar and listener to parse DSL commands and generate AST

Volatility Modeling for Crypto Asset Allocation

Algorithmic Trading Course – [GitHub](#)

IUST University
Spring 2024

- Estimated crypto asset volatility using GARCH, EGARCH, FIGARCH, and statistical estimators

- Optimized portfolio weights using Black-Litterman model to maximize Sharpe ratio

Naïve Bayes Text Classification

Artificial Intelligence Course – [GitHub](#)

IUST University
Fall 2023

- Built a complete text classification pipeline using the Naïve Bayes algorithm
- Performed text preprocessing (tokenization, normalization) and feature extraction
- Trained and evaluated model on labeled datasets; generated predictions on unseen data

XV6 System Call and OS Kernel Development

Operating Systems Course – [GitHub](#)

IUST University
Fall 2023

- Developed a Unix-like educational OS kernel using C and x86 Assembly
- Implemented process management: creation, scheduling, and termination
- Extended XV6 by adding threading support in C

Honors & Certificates

Among top 10% in My Class in GPA(last two years:17.37/20)

Sept 2021 - Present

School of Computer Science, IUST

- Class of 110 students

Ranked Within the Top 0.5% in Iranian University Entrance Exam

Spring 2025

Mathematics and Physics majors

- Ranked **175** among 127000 students

Scored above 1000 on Codeforces and solved over 100 algorithm problems on LeetCode Dec 2024

Profile available on [Codeforces.com](#)

Profile available on [leetcode.com](#)

- Demonstrated strong problem-solving skills and proficiency in algorithms and data structures.

Finalist – Irancell Labs Artificial Intelligence Hackathon

Sept 2023

Certificate available on [Quera.org](#)

- Selected as a finalist for demonstrating strong skills in developing and optimizing AI models.

Introduction to Deep Learning with PyTorch

Fall 2024

Certificate on [DataCamp](#)

- Includes courses on Deep learning with PyTorch.

Introduction to Machine Learning

May 2025

Certificate on [Kaggle](#)

- Includes courses on Machine learning with scikit-learn.

CS50: Introduction to Computer Science

Summer 2021

Certificate on [CS50](#)

- Includes courses on Data Structures, Algorithms, SQL, Python, Web Development, CSS, HTML, and JavaScript.

Standardized Tests

- **TOEFL iBT:** Planning to take on September 27th, 2025
- **GRE:** Planning to take on November 2nd, 2025

References

Dr. Reza Entezari-Maleki

Assistant Professor at Department of Computer Engineering

– Email: entezari@iust.ac.ir

Iran University of Science & Technology

Dr. Nasser Mozayani

Associate Professor at Department of Computer Engineering

– Email: mozayani@iust.ac.ir

Iran University of Science & Technology

Dr. Mehrdad Ashtiani

Associate Professor at Department of Computer Engineering

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Iran University of Science & Technology