

# Ali Keramati

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## Education

### College of Electric and Computer Engineering, University of Tehran

Tehran, Iran

B.SC. IN COMPUTER ENGINEERING (MAJOR STUDY)

Sep. 2019 - present

- Last Year GPA: 4/4 · CGPA: 18.27/20 (3.83/4)
- Related Courses: Discrete Mathematics(20/20) · Engineering Probability and Statistics(17.8/20)  
Data Structures and Algorithms(20/20) · Machines and Language Theory(18.9/20) · Artificial Intelligence(19.1/20)  
Foundations of Information Technology(19.6/20) · Internet Engineering(20/20)

### College of Psychology and Education, University of Tehran

Tehran, Iran

MINOR STUDY IN EDUCATIONAL SCIENCE

Sep. 2021 - Jul. 2023

- CGPA: 19.3/20 (4/4)
- Related Courses: Educational Psychology(18.75/20) · Introduction to Psychological Tests (specialization) (20/20)  
Patterns and Teaching Methods(20/20) · Basics of Qualitative and Quantitative Research Methods(19/20)  
The Principles of Lesson Planning(20/20) · Instructional Design(19/20)

### Allame Helli 4 High School

Tehran, Iran

DIPLOMA IN MATHEMATICS AND PHYSICS

Sep 2016 - Jul. 2019

- CGPA: 19.66/20
- As a part of the National Organization for Development of Exceptional Talents (NODET)

## Research Interests

- Education Technology (EdTech)
- AI in Education
- CSCL
- RL4Ed & ML4Ed & LLMEd
- E-Learning
- Collaborative Learning

## Publications

Vatandoust M., Mohajeri M. M., Keramati A., and Ahmadabadi M. N. (2024, expected). "Bridging the Educational Divide: Scaling Deep Learning with AI". (In Preparation)

Keramati, A., Keramati, M. R., and Arefian, M. H. (2023). "Students' Reflection on the Effect of Collaborative Learning on Learning Environment and Academic Achievement in Online Reflective Platforms". Journal of Reflective Practice. (Under Review)

Keramati, M. R., Gillies, R., Ansarizadeh, F., and Keramati, A. (2023). "Challenges and Solutions in Implementing Cooperative Learning in Classroom Environments: A Case Study of Primary School Teachers' Lived Experiences". Journal of Early Years Education. (Under Review)

Keramati A., Fallah A., and Taghiyareh F. (2023). "Enhanced Iranian Integrated Healthcare System Through Root Cause Analysis". Iranian Conference on Advances in Enterprise Architecture. Affiliated with IEEE Xplore. (Under Review)

## Research Experience

### Under the supervision of Prof. M. Nili Ahmad Abadi

University of Tehran

RESEARCH ASSISTANT AT COGNITIVE SYSTEMS LAB

May. 2023 - present

Focused on revolutionizing education, we developed a new pedagogy model for Deep Learning. Utilizing advanced AI tools and platforms like Google Classroom and Discord, collaborative learning environments were significantly enriched. The integration of AI-based robots further enhanced the learning experience, offering personalized education solutions. For more details, you can explore our [website](#)

### Under the supervision of Prof. F. Taghiyareh

University of Tehran

RESEARCH ASSISTANT AT E-LEARNING LAB

Mar. 2023 - present

Engaged in the study of transforming static educational resources into interactive content, my focus lies on meticulous alignment with educational standards such as Bloom's Taxonomy. Utilizing the Avida-ED project, we extract IEEE-LOMs from learning objects and apply genetic algorithms to create highly valuable learning resources.

## Teaching Experience

## UNIVERSITY OF TEHRAN

<b>Head Teaching Assistant</b>	INTRODUCTION TO SOFTWARE TESTING, PROF. E. KHAMESPANAH	Aug. 2023 - Present
<b>Instructional Designer</b>	DISCRETE MATHEMATICS, PROF. S. MOHAMMADI	Aug. 2023 - Present
<b>Teaching Assistant</b>	DATABASE DESIGN, PROF. A. SHAKERI	Feb. 2023 - Present
<b>Teaching Assistant</b>	ALGORITHM DESIGN, PROF. M. ASADPOUR	Feb. 2023 - Aug. 2023
<b>Teaching Assistant</b>	SOFTWARE ENGINEERING, MRS. F. HALATAEI	Feb. 2023 - Aug. 2023
<b>Head Teaching Assistant</b>	DISCRETE MATHEMATICS, PROF. S. MOHAMMADI	Aug. 2022 - Aug. 2023
<b>Supervising Teaching Assistant</b>	DATA STRUCTURES AND ALGORITHMS, PROF. H. FAILI	Aug. 2022 - Present
<b>Teaching Assistant</b>	ENGINEERING PROBABILITY AND STATISTICS, PROF. B. BAHRAK	Aug. 2021 - Feb. 2023
<b>Teaching Assistant</b>	ELECTRICAL CIRCUIT, MR. M. SEYFIPOOR	Aug. 2021 - Feb. 2022
<b>Teaching Assistant</b>	DATA STRUCTURES AND ALGORITHMS, PROF. H. FAILI	Feb. 2021 - Aug. 2021
<b>Teaching Assistant</b>	DISCRETE MATHEMATICS, PROF. S. MOHAMMADI	Aug. 2020 - Aug. 2022

## Academic Projects

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### Baloot

Internet Engineering

A FULLY FUNCTIONING AMAZON CLONE

A complete implementation of a website from scratch by me and my teammate. This project was developed using Java and Spring for the back-end, and React for its front-end. We have used tools like CI/CD pipelines, JDBC, JUnit, Github OAuth apps, etc.

### XV6 Kernel

Operating Systems Lab

MODIFIED XV6 KERNEL

Enhancing xv6 by adding Additional Features and Functionalities such as new system calls, three new custom task schedulers, and a process synchronization (using semaphore) to xv6 kernel.

### CMM Compiler

Compiler Design

C- - PROGRAMMING LANGUAGE COMPILER

The CMM Language Compiler undergoes four essential phases — Grammar Specification, Type Analysis, Name Analysis, and ByteCode Generation — ensuring precise interpretation and transformation of CMM code for simple application development.

## Certifications

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<b>Introduction to EdTech</b>	EDHEC BUSINESS SCHOOL	Sep. 2023
<b>Generative AI with Large Language Models</b>	DEEPLARNING.AI	Jul. 2022
<b>Fundamentals of Reinforcement Learning</b>	UNIVERSITY OF ALBERTA	Aug. 2023
<b>Game Theory</b>	STANFORD UNIVERSITY, THE UNIVERSITY OF BRITISH COLUMBIA	In Progress

## Skills

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<b>Programming</b>	Advanced: C/C++, Python, Java High Intermediate: C#, SQL, Javascript Intermediate: LaTeX, Verilog, HTML/CSS Familiar: GoLang, R
<b>Technologies</b>	Git, Docker, Kubernetes, Maven, Makefile
<b>Software Engineering</b>	Familiar with multiple design patterns.
<b>Web Development</b>	React, TomCat, Spring
<b>Database</b>	MySQL, Postgres, MongoDB, Neo4j, Redis, ElasticSearch
<b>Operating Systems</b>	Linux (Ubuntu), Microsoft Windows, MacOS

## Interests

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- Playing Soccer
- Watching Movies
- Workingout
- Playing Guitar

# Languages

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<b>Persian</b>	Native
<b>English</b>	Proficient
<b>Turkish</b>	Fluent
<b>Arabic</b>	Basic