# RREZA AZARI

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## Education

# Sharif University of Technology

September 2020 - present

Bachelor of Science in Computer Engineering

Tehran, Iran

• Overall GPA: 17.93/20.00

• Last two year GPA: 19.60/20.00

# Allameh Helli High School

July 2017 - June 2020

Diploma of Mathematics

Tehran, Iran

• Affiliated with National Organization for Development of Exceptional Talents (NODET)

• GPA: 19.78/20.00

# Research Interests

• Computer Vision

• Artificial Intelligence

• Machine Learning

• Deep learning

## Research Experience

## IPL (Image Processing Lab)

June 2024 - Now

- Research Assistant at IPL under supervision of Prof. Kasaei
  - \* Focuses on Efficient Image Super-Resolution using Deep Learning.

# Teaching Assistant

Artificial Intelligence	Dr. Mohammad Hossein Rohban	Spring 2024
Artificial Intelligence	Dr. Mohammad Hossein Rohban	Fall 2024
Machine Learning	Dr. Ali Sharifi Zarchi	Fall 2024
Probability and Statistics for Engineering	Dr. Amir Najafi	Fall 2024
Probability and Statistics for Engineering	Dr. Amir Najafi	Spring 2024
Probability and Statistics for Engineering	Dr. Amir Najafi	Fall 2023
Probability and Statistics for Engineering	Dr. Elham monifi	Spring 2023
Linear Algebra	Prof. Hamid Reza Rabiee, Dr. Maryam Ramezani	Spring 2023
Computer Architecture	Dr. Laleh Arshadi	Spring 2024
Computer Architecture	Dr. Laleh Arshadi	Fall 2023
Computer Architecture	Dr. Laleh Arshadi	Spring 2023
Computer Simulation	Dr. Bardia Safaei	Fall 2024
Computer Simulation	Dr. Bardia Safaei	Spring 2024
Computer Simulation	Dr. Hossein Peyvandi	Fall 2023
Numerical Computations	Prof. Hamid Sarbazi-Azad, Dr. Samira Hossein Ghorban	Fall 2023
Compiler Design	Ms. Samaneh HosseinMardi	Fall 2024
Compiler Design	Ms. Samaneh HosseinMardi	Spring 2024
Technical Presentation	Dr. Laleh Arshadi	Spring 2024

## **Projects**

## 

January 2024

- This project presents a comprehensive 3D analysis of tennis, utilizing advanced computer vision methodologies.
- Our investigation centers on detecting players, tracking ball trajectories, establishing a 3D comprehension of the court, and classifying player poses.
- Created a Linux virtual machine to run on Google Cloud so that the program is able to run everyday from the cloud.
- This framework aims to create a reliable system for fault detection and precise game statistics reporting.
- This project was done in the Fundamental 3D Computer Vision course under supervision of Prof. Shohreh Kasaei

- This app is client-server using socket programming to communicate between the client and the server.
- MVC architecture is used in this project for both the client and the server. The server is multi-threaded and can handle multiple clients at the same time.
- This project was done in the Advance Programming course under supervision of Mr. Salmani.

# CMinus Compiler | Python | GitHub

September 2023 - January 2024

- Implemented a Compiler for CMinus Langauge, a simplified subset of the C language, using Python and its standard libraries.
- The compiler consisted of Lexer, Parser, Code Generator, and Semantic Analyzer.
- This project was done in the Compiler Design course under supervision of Mr. Sani.

## Computer Vision Project | Python | GitHub

June 2024

- Implementing a CNN from scratch and Neural Style Transfer.
- This project was done in the Machine Learning course under supervision of Dr. Fatemeh Seyyed Salehi.

#### Buchi automaton | 🞧 GitHub

May 2024

• Theoretical Project about Büchi and Generalized Büchi automaton.

## Correlated and Mixed Nash Equilibrium | Python | GitHub

July 2024

- Implementing Correlated and Mixed Nash Equilibrium.
- This project was done in the Algorithmic Game Theory course under supervision of Mr. Seddighin.

## Coursework

Artificial Intelligence	Dr. Mohammad Hossein Rohban	20.00/20.00
Machine Learning	Dr. Fateme Seyed Salehi	20.00/20.00
Fundamental 3D Computer Vision	Prof. Shohreh Kasaei	20.00/20.00
Probability and Statistics for Engineering	Dr. Ali Sharifi Zarchi	20.00/20.00
Linear Algebra	Prof. Hamid Reza Rabiee	20.00/20.00
Data Structure and Algorithms	Dr. Safarnejad	20.00/20.00
Design of Algorithms	Dr. Hamid Zarrabi-Zadeh	19.20/20.00
Algorithmic Game Theory	Dr. Masoud Seddighin	20.00/20.00
Theory of Formal Languages and Automata	Dr. Mahdi Dowlati	20.00/20.00
Operating Systems	Dr. Mirzaei	20.00/20.00
Compiler Design	Ms. HosseinMardi	20.00/20.00
Machine Learning	Stanford CS229	Online, audited
Deep Learning for Computer Vision	Stanford CS231N	Online, audited
Supervised Machine Learning	Coursera	Ongoing
Neural Networks and Deep Learning	Coursera	Ongoing

#### Technical Skills

General Programming Languages: Python, Java, C, HTML/CSS, R, SQL

Data Science Libraries: OpenCV, Sklearn, Matplotlib, Numpy, PyTorch, TensorFlow

Assembly Programming Languages: MIPS, x86 Typesetting Languages: LaTeX, Markdown

Domain Specific Languages: Verilog

#### Honors and Awards

## National University Entrance Exam of Iran (Konkur)

2020

• Ranked  $62_{nd}$  among more than 155.000 participants (top 0.04%)

#### Language

#### English: Upper-Intermediate

• TOEFL: 97 (R:25, L:23, S:23, W:26)

• MyBest: 107 (R:30, L:28, S:23, W:26)

**Persian**: Native proficiency