

Mahdi Bayanloo

Electrical Engineer

Experienced academic with a publication and work experiences regarding Robotics and Machine Learning, holding a B.Sc. in Electrical Engineering from University of Zanjan.



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RESEARCH INTERESTS

Machine Learning (CNN)

AI (Computer Vision)

Control Systems (Robotics)

Biomedical Engineering

EDUCATION

B.Sc. in Electronics Engineering

University of Zanjan, Zanjan, Iran

Thesis: Automatic Door Control Using an ESP32 Camera Module And ML-Based Face Recognition

Grade: 17.61 / 20, **3.62 / 4**, 1st Rank

2019–2023

High School

Shahed high school, Zanjan, Iran

Grade: 18.79 / 20, **3.8 / 4**, Mathematics, 1st Rank

2016–2019

TEACHING EXPERIENCE

Computer Programming (C++)

University of Zanjan

2020 to 2022

Teacher Assistant

Digital systems

University of Zanjan

2022 to 2023

Teacher Assistant

Electronics II

University of Zanjan

2022 to 2023

Teacher Assistant

English Teacher

Gooyesh Institute

2019 to 2023

English teacher for A2, B1 and B2

PROFESIONAL EXPERIENCE

R&D Software Engineer

Company: BEATLIFE Co

July 2022 - December 2022

We have worked on a device called **CPR meter** that helps people perform CPR correctly during a heart attack

Web Link: <https://beatlife.co/>

Project Manager

Company: Borna Lab

June 2021 - July 2022

I, along with a team of five people, were working on a device called **PCR** to diagnose **COVID_19**

Web Link: <http://www.bornalab.ir/>

PUBLICATIONS

Academic Article

Fast Fixed time sliding mode control with barrier function for quadrotor

authors

Amin Najafi, Mahdi Bayanloo, S.Mobayen

Under review 2024

LANGUAGES

English (IELTS 7.0 overall)

Turkish (Native)

Persian (Native)

ACADEMIC PROJECTS

Wireless Door Control Using an ESP32 Camera Module And ML-Based Face Recognition

For: Bachelor's final project

In this project, a door was automatically controlled using face recognition with the help of machine learning and computer vision.

[Link](#)

Wireless DC motor Controller

For: Robotic Association

In this project, I remotely controlled a DC motor on a boat using an NRF module for long-range radio communication, with an impressive communication range of up to 500 km.

[Link](#)

Digital clock with FPGA

For: Digital Systems Course

In this project, with the help of Cyclone II FPGA chip, Quartus programming environment and Verilog hardware description language, we were able to launch a digital clock and set alarms and settings for it.

[Link](#)

The grand race of the pathfinder robot

For: Robotic Association

In this competition, groups of 5 to 6 people were formed, and a pathfinder robot was trained and built.

[Link](#)

TECHNICAL SKILLS

C++
Java
Python

OOP (Java, Python, C++)
Arduino
Raspberry Pi

Matlab
Linux
FPGA

HONORS & AWARDS

Ranked 1st among undergraduate students in **Bachelor's degree**.

Ranked 1st among **high school** students

Member of the [National Elite Foundation](#) of Iran.

Awarded the title of the University of Zanjan's **Best Academic Student**.

Served as the **Head** of [University of Zanjan Robotics Association](#).

Received the **top** title in the Creative Activity section of the "**Harakat**" festival for Robotics Associations among universities.

CERTIFICATIONS

Machine learning Certificate

Institute: IEEE

September 2022

[Link](#)

Advanced English

Institute: Gooyesh Institute

December 2020

[Link](#)

REFERENCES

Dr. Nayereh Ghobadi

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University of Zanjan
Department of Electrical and
Computer Engineering
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Dr. Saleh Mobayen SMIEEE

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Department of Electrical and
Computer Engineering
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Dr. Vahid Rashtchi

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