



Khumar Huseynzade

M.Sc. Student (Eminent) | Aspiring Analog IC Engineer

10 January 2002

Azerbaijani

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PROFESSIONAL SUMMARY

I am a technically focused student who enjoys learning through hands-on work and problem-solving. I like understanding how things work in practice, improving my skills over time, and contributing reliable, well-thought-out work as part of a team.

EXPERIENCE JOURNEY

M.Sc. European Master on Embedded Intelligence Nanosystems Engineering (EMINENT) Oct 2024 — Present

Focus: Nanotech, Embedded Systems, Analog Design

Scholarship Holder

University of Siegen Mar 2025 — Present

Hellenic Mediterranean University Oct 2024 — Mar 2025

- ▶ Design and simulation (schematic and layout) of **6T SRAM** and **4T image pixel** circuits using **Cadence Virtuoso**.
- ▶ **OPAMP** schematic design and performance simulation (DC, AC, transient analysis) in **Cadence Virtuoso**.
- ▶ Schematic design and simulation of a **memristor-based perceptron** in **Cadence Virtuoso**.
- ▶ Fabrication of a **memristor** crossbar array in a cleanroom environment, including wafer cleaning, material deposition, and photolithography.
- ▶ Electrical characterization of **memristor** devices and graphene field-effect transistors using a probe station.

Software Developer Jun 2023 — Feb 2025

Apex Web Solutions · UAE (*Remote*) Jan 2024 — Feb 2025

Qmeter · Azerbaijan (*On-site*) Jun 2023 — Feb 2024

- ▶ Developed and maintained websites using Next.js and React
- ▶ Applied SEO best practices and improved page structure and performance
- ▶ Worked with backend developers and QA engineers to integrate APIs, test features, and resolve bugs

B.Sc. System Engineering Sep 2019 — Jun 2023

Azerbaijan State Oil and Industry University · Baku, Azerbaijan

- ▶ Graduated with honors (GPA: 90/100)
- ▶ Thesis: Integration of Smart Home and Internet of Things using Web Development

SKILLS

DESIGN & FABRICATION

Hardware Design: Cadence Virtuoso Verilog-A VLSI Design Analog Circuit Design LTSpice COMSOL

Laboratory Skills: Device Fabrication, Characterization & Testing Cleanroom Protocols

SOFTWARE ENGINEERING

Web Development:

Next.js React Node.js Express.js Supabase CSS/SCSS Tailwind Axios

Programming Languages:

JavaScript TypeScript Python C++

Tools & Others:

Git Azure Cloud Jira Bitbucket Blender Figma CARLA

LANGUAGES

Azerbaijani **Native**

Turkish Professional **C2**

English Professional **C1 IELTS**

Russian Basic User **B1**

German Basic User **A1**

HONORS & AWARDS

- **Erasmus Mundus Joint Master's Scholarship** 2024
European Commission
Embedded Intelligence and Nanosystems Engineering (EMINENT)
- **Technest Scholarship** 2021
Ministry of Transport, Communications and High Technologies
Full Stack Web Development

PROJECTS

FPGA-Accelerated Object Detection for Autonomous Driving Embedded Systems

Collaborative project developing an FPGA-accelerated object detection system for autonomous driving using real-time embedded computing and CARLA simulation

- ▶ Designed and implemented **FPGA** acceleration for real-time object detection
- ▶ Integrated with **CARLA** simulation for autonomous driving scenarios
- ▶ Optimized for **real-time performance** on embedded hardware

FPGA Verilog CARLA Embedded Systems Computer Vision Real-time Computing

Portfolio Website Web Development

Personal portfolio showcasing projects and experience with modern web technologies

- ▶ Built with **Next.js 14** and **TypeScript** for type safety
- ▶ Responsive design with **Tailwind CSS** and custom **SCSS**
- ▶ Optimized for performance and SEO

Next.js TypeScript Tailwind CSS SCSS

ENDORSEMENTS

"Ms. Huseynzade is extremely self-motivated individual with outstanding communication skills... She worked on the project alone and delivered consistently high-quality work, demonstrating great potential for growth within the company."

Fariz Aliyev — Regional Managing Director, Qmeter IT Services

"I can categorize her as one of the most hardworking and sincere students I have ever had the privilege to teach... I firmly believe that her vivacious energy, diligent work ethic, and passion will greatly benefit the academic community."

Prof. Latafat Gardashova — Head of Department of Doctoral Studies, Azerbaijan State Oil and Industry University