

Muhammet Özmen

Embedded System & Software Engineer

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Embedded Systems and Software Engineer specializing in hardware–software co-design, embedded AI integration, and end-to-end automation systems. Experienced in building real-world, production-oriented solutions across platforms, with a strong focus on system architecture, performance, and reliability.

EXPERIENCE

Winton Software & Innovation

Software Engineer

İskenderun, Hatay

Feb 2025 – Jul 2025

- I contributed to the development of an **LLM-based** academic performance analytics and automated grading system for use in universities; I was responsible for the **cross-platform interface** and **backend** processes.
- I developed an end-to-end automation system using **Qt (Widgets/QML)** and **Python**, and added LLM API integration and voice command support.
- By setting up a headless **Linux** system on the **NVIDIA Jetson Nano**, I integrated **OpenCV** based image processing and hardware control into an application I wrote in **C++**.

Software Engineering Intern

Jul 2025 – Aug 2025

- As an intern on an **LLM-based smart home** prototype development project, I designed the **communication** architecture between the **ESP** module and the **microprocessor** and conducted environmental integration tests.
- I have successfully completed test suites that verify hardware-software communication via **UART, I2C, and GPIO** protocols in the **ESP32 + Raspberry Pi** integration.
- I implemented end-to-end device control via both a PC and voice commands using a **Qt-based Python** interface; by developing the serial communication infrastructure and logging mechanisms in a **Linux** environment, I reduced debugging time by up to 40%.

EDUCATION

İskenderun Technical University

Lisans, Bilgisayar Mühendisliği

Eki 2021 – Ağu 2025

İskenderun/Hatay

- GNO:** 3.3/4
- As President of the **IEEE Computer Society**, I organized large-scale technical events and mentored student teams that advanced to the **Teknofest** finals in collaboration with **TÜBİTAK**.
- As Vice President of the **İSTE UAV Club**, I founded the **GÖKTECH** team and managed technical projects and competition processes from start to finish.
- As part of the **T3** Foundation's Instructor Mentoring Program, I contributed to **STEM**-focused learning by providing hands-on training in **robotics** and basic **electronics** over a two-year period.

SKILLS

Technical Skills:

- Programming:** C/C++, Python, Bash
- Embedded & Hardware:** STM32, NVIDIA Jetson, Raspberry Pi, ESP32, AVR
- Protocols & RTOS:** UART, I2C, SPI, GPIO, FreeRTOS
- Frameworks & Technologies:** Qt (Widgets/QML), OpenCV, TensorFlow, Git, Linux (Headless)

Social Skills: Self-directed learning and adaptability, Project management and attention to detail, Taking initiative and accountability, Problem-solving under pressure, Resource management and efficiency.

Foreign Languages: English (B2 Upper-Intermediate)

You can access my [Projects](#) and [Certificates](#) from my websites.