

Ali Gürcan

Computer Engineer

Istanbul, Turkey

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Summary

4th year **Computer Engineering student** experienced in **Embedded Systems**, **Artificial Intelligence**, and **Full Stack Engineering**. Technical background includes developing **Large Language Model (LLM)** applications, **cross-platform mobile apps**, and **embedded software** projects. Capable of working across the full technology stack, from low-level hardware interactions to high-level application logic.

Education

- **Gebze Technical University** Kocaeli, Turkey
Bachelor of Science in Computer Engineering 2022 – Present
- **Middle East Technical University** Ankara, Turkey
Bachelor of Science in Civil Engineering (Transferred) 2020 – 2022

Experience

- **Sistematik OTVT** Kocaeli, Turkey
Software Engineer Intern Jan 2026 – Feb 2026
 - Designed and built a full-stack AI-powered chatbot that allows field operators to query IoT sensor data using everyday Turkish language instead of writing SQL.
 - Enabled automated report generation and data visualization, reducing manual data analysis effort for on-site personnel.
 - Implemented role-based access control, multi-user session management, and a SQL security layer to meet enterprise deployment requirements.
- **Scale AI** Remote / San Francisco, US
Junior AI Engineer Nov 2024 – Dec 2025
 - Contributing to the training and evaluation workflows of advanced AI models (LLMs).
 - Enhancing the quality of AI-generated code through rigorous review and correction.
 - Supporting AI integration across various business systems to optimize performance.
- **Galtek** Istanbul, Turkey
Full Stack Developer Intern Jun 2024 – Aug 2024
 - Developed a full-stack ERP module tailored for an electrical construction company.
 - Designed and implemented a RESTful API architecture using Node.js.
 - Built responsive frontend interfaces using React.js to streamline resource allocation and financial tracking.

Projects

- **Mobile Oscilloscope (Senior Design Project)** | *STM32, C++, React Native*
 - Designed and implemented a portable oscilloscope using STM32 microcontroller for real-time signal acquisition.
 - Developed a mobile application to visualize waveforms and control trigger settings via Wi-Fi.
 - Optimized high-speed ADC and DMA usage to achieve accurate signal sampling and minimized latency.
- **AI Crypto Analysis (Market Watcher)** (*Live Demo*) | *React, AI, WebSockets*
 - Built a real-time cryptocurrency tracking platform featuring live price monitoring.
 - Integrated AI-powered trading signals and interactive charts for market analysis.
 - Implemented social community features and ensured a fully mobile-responsive design.
- **Chatbot for University Guidelines** | *Python, NLP, RAG, Vector DB*
 - Developed a Retrieval-Augmented Generation (RAG) pipeline to assist students with academic regulations.
 - Utilized vector embeddings to accurately retrieve and synthesize information from university policy documents.
 - Containerized the application using Docker for consistent deployment.
- **Construction ERP System** | *React.js, Node.js, SQL*
 - Built a comprehensive ERP module to manage project lifecycles, resource allocation, and financial tracking.
 - Designed a scalable RESTful API backend and optimized database queries for reporting performance.

Technical Skills

- **Languages:** C, C++, Python, Java, JavaScript, SQL
- **Embedded Systems:** STM32, ARM Cortex-M, UART/I2C/SPI, ADC/DMA
- **Frameworks & Libraries:** React.js, React Native, Node.js, REST APIs
- **Tools & Platforms:** Git, Docker, Unix/Linux, STM32CubeIDE
- **Areas of Interest:** Mobile App Development, Embedded Software, IoT, RAG (Retrieval-Augmented Generation), FinTech

Languages

- **Turkish:** Native | **English:** Advanced | **Italian:** Basic