









Gyokhan Kochmarla

Embedded Software Engineer



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 02 Nov 2001  in/gokhankocmarli  electricalgorithm

 gyokhan.com  Bulgarian, Turkish - full working permission in Germany

SUMMARY

I'm a software engineer with expertise in the full product lifecycle, from client needs analysis and system design to implementing and testing embedded and high-performance solutions. Open to new challenges and eager to contribute to cutting-edge projects in the embedded systems domain.


Main Interests: Embedded Linux OS and Kernel Development, Embedded Systems Design for Bare-Metal / RTOS Applications, High-Performance Optimization, Machine Learning on the Low Footprint Devices

PROFESSIONAL EXPERIENCE

Nov 2024 – present
Dresden, Germany

Amazon Web Services, Software Development Engineer - Embedded
Looking for new opportunities due to misinformation on the job description.
EC2 - Amazon Linux - Test Automation


Jul 2023 – Oct 2024
Istanbul, Turkey

Accenture Industry X, Embedded & Firmware Software Engineer 

Resigned from the position due to relocation abroad for personal reasons.


- **Embedded Software:** Python Development, gRPC and REST, Modern C++, Embedded Linux OS Development, PetaLinux, Jenkins, Containerization
- **Artificial Intelligence:** LLMs, LangChain, RAG, Vector Databases, Computer Vision
- **Soft Skills:** Project Management, SAFe, SCRUM Lead, Client Relationships

Aug 2022 – May 2023
Istanbul, Turkey

Sixfab Inc., Embedded Software R&D Engineer 

- **Embedded Software:** Cellular Networks (LTE, GSM), Driver Development (UART, SPI, I2C), TCP/IP (MQTT, CoAP, HTTP), ARM Cortex M - RP2040, Embedded Linux Application Development, Quectel, eSIM, Smart Cards, Hardware-in-the-Loop Test Automation
- **Soft Skills:** Open Source Software Development, Client Relations, Research, Report


Apr 2022 – Aug 2022
Istanbul, Turkey

Sixfab Inc., Embedded Software Engineering Intern 

Cellular Networks, RP2040 Pico C SDK, AWS IoT Core, MQTT, HTTP


EDUCATION

Sep 2020 – Jul 2024
Istanbul, Turkey

BEng. Electrical & Electronics Engineering, Marmara University 

High-honours degree with 3.57/4.00 GPA.

Sep 2021 – Jul 2022
Szczecin, Poland

Faculty of Electrical Engineering, Exchange Studies, 1-Year Period,
West Pomeranian University of Technology in Szczecin 

SKILLS

Python, C, Modern C++, MATLAB • Embedded Linux Kernel & OS Development • RP2040, ESP32, nRF91 • Real-Time Operating Systems • Industrial IoT (LTE / BLE / WiFi / GPS) • Machine Learning • Large Language Models • Computer Vision, Image Processing • Test Automation • SCRUM, SAFe • Project Management & Client Relations

PUBLICATIONS

Aug 2024 **Performance Comparison Index for Image Super-Resolution Models,**
Springer Nature - Signal, Image and Video Processing [↗](#)

OPEN SOURCE PROJECTS

Research, AI **Universal Full-Reference Performance Index for Image Quality Assessment** [↗](#)
State of the Art Super Resolution, PyTorch, OpenCV, Fine Tuning, FFmpeg, LaTeX

Research, DSP **Paper Implementation "Digital Image Steganography: An FFT Approach"** [↗](#)
Fast Fourier Transform, Steganography, Python, Signal Modulations

Embedded, AI **Intelligent Home Security System** [↗](#)
Embedded Linux, Camera, Edge AI, Detection, Design Patterns, OpenCV

Embedded **SmartWatch with Zephyr RTOS** [↗](#)
ESP32, LVGL, Zephyr RTOS, Bluetooth Low Energy

Embedded, ML, Web **Anomaly Detection and Predictive Maintenance on Diesel Engines** [↗](#)
Project Management, nRF91, Zephyr RTOS, NB-IoT, CoAP, TinyML, Python-Flask

Research, AI **Classic Genetic Algorithm for PID Tunning** [↗](#)
MATLAB, GUI Development, Control Theory, Evolutionary Algorithms

REFERENCES

Atakan Çelik, *Embedded Systems Team Lead*,
Accenture Industry X
atakan.celik@accenture.com

Gökhan Bora Esmer, *Prof. Dr.*, Marmara University
bora.esmer@marmara.edu.tr

Yasin Kaya, *R&D Director of Embedded Software*,
Sixfab Inc.
yasin@sixfab.com

LANGUAGES

English — Professional Working Proficiency

Turkish — Native Language

DECLARATION

I hereby declare that the details furnished above are true and correct.

Gyokhan Kochmarla
Leipzig, 21 Dec 2024