



Jakub Kotlorz

Embedded Software Engineer

Kraków area, Poland

(+48) 508 251 545

jkotlorz@protonmail.com

Summary

Embedded Software Engineer with 12 years of experience in C/C++ development and QA across Linux-based platforms, AUTOSAR-driven automotive systems, and radio modems communicating over satellite links. Strong background in requirements engineering, and cross-component feature development, including UI-related modules, Linux Kernel drivers, IoT-based protocols distributed communication. Familiar with Agile workflows and supporting the team as a part-time Scrum Master. Experience spans safety-critical ADAS platforms and telecommunications systems aligned with 3GPP 4G standards. Focused on delivering robust embedded and system-level solutions.

Experience

Cobham Satcom / Software Engineer

MAY 2022 – DECEMBER 2025 (over 3.5 years) | KRAKÓW, POLAND

Development of embedded software for satellite telecommunications devices.

Responsible for both platform-level applications using C++ (up to C++17) and protocol-driven implementations for radio modules using C. Development of system logic, APIs, web-based user interfaces in Python. Complemented by unit and integration testing (gtest, unittest, pytest). Daily workflow in a Docker/Git/Jira/Jenkins environment.

Configuring and implementing Ethernet/WAN behavior in the devices, as well as introducing MQTT-based communication into the projects. Integrating software components using Yocto and Buildroot. Linux development, mostly user-space, with familiarity in kernel driver concepts and low-level interface programming. Providing troubleshooting and bug-fixing support.

Close collaboration in defining software architecture in a cross-team environment. Refining selected software components, including requirements clarification, story and task creation. Acting as part-time Scrum Master within the Agile workflow.

Aptiv / Embedded Software Engineer

JUNE 2020 – APRIL 2022 (almost 2 years) | KRAKÓW, POLAND

Embedded software development for safety-critical ADAS camera, with code maintenance, refactoring, and feature extensions in C. Strengthened quality through unit testing (gtest).

Contributed to power management and hardware monitoring tasks, while providing fixes in the code and AUTOSAR stack configuration. Ensured proper behavior by verifying and extending SOME/IP communication frames. Supported cross-team collaboration with problem solving and root cause analysis. Provided code and requirements documentation on different levels in DOORS.

intive / Embedded Software Engineer

MARCH 2019 – MARCH 2020 (over 1 year), KRAKÓW, POLAND

Software development for automotive business.

Worked with C, partially C++ in AUTOSAR environment, focusing on CAN, Ethernet, diagnostics. Analyzed incident tickets and delivered bug fixes across multiple functionalities.

Supplemented requirements with UML modeling in Enterprise Architect to support design and documentation.

FEV Polska / Software Engineer

JULY 2017 – FEBRUARY 2019 (1 year 8 months), CHOLERZYN, POLAND

Software Engineer contributing to development and testing for ADAS and vision systems.

Performed debugging and validation in Embedded C using CANoe, while supporting feature development and design in C and AUTOSAR. Worked on V2X communication, HMI modules, and SOME/IP integration to enhance connectivity and safety.

Served as tech lead to help define customer needs for vehicle management platform and contributed to software production of a designed PHP/PostgreSQL/HTML web application.

Nokia / Software Test Engineer

APRIL 2017 – JUNE 2017 (3 months), KRAKÓW, POLAND

Software Test Engineer for LTE eNB systems. Contributed to requirements analysis for 5G features and designed functional tests in Python using Robot Framework. Executed tests and solid introduction to Agile/SCRUM workflows.

Aptiv / Software Systems Test Engineer

JUNE 2013 – MARCH 2017 (almost 4 years), KRAKÓW, POLAND

Software Systems Test Engineer for automotive applications.

Performing functional testing and bug discovery, including drive-tests in vehicles. Automated test workflows by preparing environments, developing test cases and proposing suites based on system and customer requirements. Utilized Vector CANoe/CAPL and proprietary TCL-based tools to validate infotainment, HVAC, and image processing systems.

Comarch (iMed24) / Internship

JULY 2012 – SEPTEMBER 2012 (3 months), KRAKÓW, POLAND

Prototyping medical devices circuit (analog/digital). PCB design using Altium Designer.

Aldec-ADT / Internship

SEPTEMBER 2011 (1 month), KRAKÓW, POLAND

Student internship. Bug fixing, code development. Introduction to HDL's compiler.

Education

Silesian University of Technology / Master of Science

Faculty of Automatic Control, Electronics and Computer Science
FEBRUARY 2012 – JUNE 2013, GLIWICE, POLAND

Electronics and Telecommunications

Final grade: very good

Specialty: Telecommunications

Thesis: Matlab environment applied for Cortex-M4 core applications

Silesian University of Technology / Bachelor of Science

Faculty of Automatic Control, Electronics and Computer Science
SEPTEMBER 2008 – JANUARY 2012, GLIWICE, POLAND

Electronics and Telecommunications

Final grade: very good

Thesis: LED Lighting Driver

Top skills

- Electronics, embedded, but also network system and UX domain
- C/C++ (ver. 17, gtest)
- Python (Robot framework, web servers, pytest, unittest)
- Linux user-space development; kernel driver concepts; Bash
- Cortex architecture, Yocto, Buildroot
- AUTOSAR stack configuration, SOME/IP communication
- Networking: Ethernet (IP/MAC/PHY), IoT/MQTT
- Debugging, software architecture, Agile/SCRUM
- Development environments: Docker, Git, Jira, Jenkins
- Requirements engineering and documentation (DOORS)

Languages

English - C1

German - B1

Spanish - A2

Polish

Hobbies

IoT - smart home automation with MQTT/Zigbee/Docker;
Sci-Fi books and movies; cycling, football and bass guitar.