Anna Kowalski - Embedded Systems Engineer / Firmware

Embedded engineer with hardware-software co-design experience for low-power IoT devices and real-time systems.

Technical Skills

C/C++, RTOS, Embedded Linux, Microcontrollers (ARM), Bluetooth Low Energy, Hardware Debugging, Yocto

Professional Experience

Senior Embedded Engineer — IoTWorks (2017 - Present)
Warsaw, Poland
• Designed battery-efficient firmware using low-power modes and optimized radio stacks.
• Ported RTOS to new SoC and integrated secure boot chain.

Firmware Engineer — HardwareLabs (2013 - 2017)
2013 - 2017
• Worked on hardware bring-up and JTAG-based debugging for production boards.

Selected Projects

Secure BLE Module: Implemented encrypted BLE stack and firmware OTA updates.

Certifications

Embedded Systems Certification

Education

• M.Sc. Embedded Systems, Warsaw University of Technology (2013)
• B.Eng. Electronics (2010)

Technical Appendix / Contributions

Contributed to open-source projects, wrote internal RFCs on system design, created automated testing frameworks, optimized critical database queries, benchmarked model serving endpoints, implemented custom operators for CUDA, designed asynchronous task dispatching and backpressure handling, and established CI gating for security checks.

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