

Przemyslaw Wisniewski (Pshemek)

Firmware • Embedded Systems • Software Architecture • C/C++ • RTOS

Residence: Szczecin, PL | **Willing to relocate**

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Summary

Firmware & Embedded Software Engineer with 10+ years of commercial experience, currently contributing to Zoox's autonomous vehicle systems. Specialized in C/C++, embedded systems, and real-time automotive software, including FreeRTOS, NXP PowerPC, and protocols like CAN, UART, I2C, ADC.

Experienced in ISO 26262 (ASIL B) safety projects and A-SPICE assessments (implementation & testing).

Growing knowledge in AUTOSAR and software-defined vehicles. Open to global relocation.

Bonus: strong hands-on skills in sustainable tech—built a solar-powered camper with LiFePO4 and custom electronics..

Technical Skills Overview:

- **Programming Languages:** C++, C, Lua, python, JavaScript, PHP, HTML, CSS, Assembler, fortran, C#
- **Architecture:** Designing sw architecture, uml diagrams, configuring BSP/HAL
- **Automotive & Embedded Systems:** AUTOSAR, FreeRTOS, OSEK, BareMetal, Linux, Aurix Tricore, STM32, NXP, PowerPC, ARM Cortex, STM, Functional Safety (ISO 26262, ASIL B), A-Spice, Vector DaVinci, EB Tresos, CAN, UART, I2C, ADC, CAPL, CANOE, FlexRay, Ethernet, CAN-FD
- **Development Tools:** MS Visual C++, STL, Boost, Qt, IBM Rhapsody, IBM DOORS, Lauterbach Trace32
- **Distributed Services:** MQTT, protobuf,
- **Version Control & Collaboration:** SVN, Git, Jira, Agile (Scrum, Kanban), CI/CD, Jenkins, Github workflows, CMake, Make, CMakeLists.txt, ninja, clang
- **Testing & Debugging:** GTest, GMock, GreenHills, Lauterbach, Trace32, Multilink, gdb, Module Testing, GTest, Unit Testing, static analysis
- **Quality & Safety:** A-Spice, Functional Safety, Cybersecurity, Reverse Engineering
- **GUI:** Qt, QML, WinAPI, wxWidgets, DirectX, OpenGL
- **Electronics:** Arduino, PCB analyzing schematics, multimeter, oscilloscope, PWM, Battery technologies (Lead-Acid, Lithium based), BMS, Solar Panels, Off-Grid installations,
- **Other Skills:** Multithreading, posix, Windows API, Web Development (front-end and back-end), AI, OpenCL, Cuda, SYCL, STL

Professional Experience:

Company	Zoox, Silicon Valley US
Duration	March 2024 - Present
Role	Senior Software & Firmware Engineer
Responsibilities	<ul style="list-style-type: none">• Designing and implementing software on the embedded NXP PowerPC platform on the FreeRTOS system.• Utilizing communication protocols such as CAN, UART, I2C, and ADC for system integration and management• Programming in C++ with an emphasis on object-oriented design.• Designing and creating CANOE simulation(Vector CANOE, CAPL)

Company	Sii, Szczecin PL
Duration	July 2023 - March 2024
Role	Senior Software Engineer
Responsibilities	<ul style="list-style-type: none"> Implementing and maintaining autosar SWC modules. Configuring and creating SWC modules in Vector DaVinci and Vector Configuration Unit testing with GTest framework Debugging software with Trace32 Lauterbach debugger on Aurix Tricore

Company	Mobica, Szczecin PL
Duration	Oct 2021-July 2023
Role	Senior Software Engineer
Responsibilities	<ul style="list-style-type: none"> Maintaining Flang - Fortran llvm based compiler in C Finding and fixing bugs in legacy code

Company	Huuuge Games, Szczecin PL
Duration	Oct 2020-Oct 2021
Role	Senior Software Engineer
Responsibilities	<ul style="list-style-type: none"> Implementing backend logic for casino game using C++14 designing and implementing interfaces between server and client using protobuf - google's library to serialize data writing user interface for casino game using lua scripting language

Company	Global Logic, Szczecin PL
Duration	Jul 2015-September 2020
Role	Senior C++ Software Engineer
Responsibilities	<ul style="list-style-type: none"> owner of Dimming module in Head-Up Display ECU creating software in C for embedded platform creating and configuring modules based on Autosar 4.2 classic Writing requirements, diagrams, tests creating and configuring Canoe simulation and writing CAPL scripts Implementing ASIL B functional safety mechanisms Being responsible for ASpace quality in software

Company	BrightOne, Szczecin PL
Duration	Mar 2014 – Aug 2015
Role	Software Engineer
Responsibilities	<ul style="list-style-type: none"> Maintaining embedded project for Car Head Unit on bare metal fixing and finding bugs in C code according to requirements in IBM Doors

Company	Object Connect, Szczecin PL
Duration	Oct 2012-Jan 2014
Role	c++/c# developer
Responsibilities	<ul style="list-style-type: none"> Implementing Windows and Sharepoint Applications in C#/C++ Create in C++ with DirectX and WinApi ebook reader for ARM based tablets Create in C++ extension for Microsoft Office Word that is communicating with documents on Sharepoint

Company	SoftLine
Duration	Jan 2012-Nov 2012

Role	Students practise
Responsibilities	<ul style="list-style-type: none"> • Implementing mobile apps with android and windows mobile • Qt based internal communicator

Education

Institution	West Pomeranian University of Technology
Duration	Oct 2010-January 2014
Qualification	Bsc
Subject	Information Technology

Languages:

English(advanced), German(basic), Polish(native)

Hobby:

music, travelling , nature, camping, electronics, baking bread

“I hereby give consent for my personal data included in the job offer to be processed for the purposes of recruitment under the Data Protection Act 1997 (Dz. U. no. 133, item 883)”.