Embedded Software Developer

PROFESSIONAL EXPERIENCE

2023 - PRESENT

EMBEDDED SOFTWARE DEVELOPER

Volvo Cars

- Developed and maintained embedded software for DHUs (Display Head Units) in vehicles, utilizing C++14, FreeRTOS and Python on Renesans RH850 and Traveo T2G microcontrollers
- Wrote HIL tests with Pytest and unit tests using GoogleTest in C++
- Maintained software download over UART and DoIP
- Maintained platform power moding
- Developed Secure Boot with dual bank memory for Traveo T2G microcontoller

• 2022 - 2023

FIRMWARE DEVELOPER

- **Fujitsu Global** Designed and developed UEFI firmware in C for x86based servers
 - Troubleshot and debugged firmware issues
 - Wrote and maintained technical documentation.

• 2020-2022 **PLUM**

C/C++ EMBEDDED DEVELOPER

- Developed and maintained embedded systems in C and C++ for IoT applications using STM32L4 and MSP430 microcontrollers
- Collaborated with hardware engineers to design and test circuits
- Implemented cellular communication protocols such as NB-IoT and Cat-M1 for Quectel BG95-M3
- Implemented menu for LCD display and data storage library for external SPI memory in C++
- Implemented gas-modem protocol on BLE device in C

EDUCATION

• 2019-2023

BIALYSTOK UNIVERSITY OF TECHNOLOGY

Bachelor of Computer Science

SKILLS

- Proficient in C, C++14 programming and debugging, CMake, GoogleTest
- Python, Pytest, HIL Testing
- CI/CD, Docker, Jenkins, Gerrit, Linux
- Experience with real-time operating systems (FreeRTOS)
- Experience with version control systems (Git, SVN)
- Experience with IoT technologies and protocols
- Proficient in using electronic test and measurement equipment