Wojciech **Olech**, MSc. computer science

High- and low-level developer, also likes electronics

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C/C++/Python developer for around a decade. I've been also working with electronics and microcontrollers (AVR and then ARM) for around 8 years. My career started with university projects and commissions for telemedicine-related prototypes, where i've been (both in a team, and solo) responsible for developing low-level firmware and testing hardware for embedded solutions. Last year i've been evaluating Rust language for it's viability in space applications and maintaining critical C software for space missions (Board Support Package and Boot Software).

EXPERIENCE

N7 Space | Embedded developer — 10.2021-now

- Maintaining and refactoring modules for critical space-grade software
- Creating Hardware Abstraction Layer for SAMV71 MCU in Rust
- Updating the test environment for ECSS-compliant CANopen library stack.

ActiveLife | Main embedded developer — 09.2021-05.2022

- Creating software for data acquisition on STM32 and it's real-time transmission to PC
- Implementation of S2-LP and MAX30001 libraries for STM32 MCU
- Diagnosing the hardware issues of the device's prototype.

STMicroelectronics | Technical support engineer — 03.2020-03.2022

- Software and hardware-related customer support
- Hands-on trainings for VL53-series distance sensors.

Teleinfomed | Main embedded developer — 06.2019-11.2019

- Creating software for EEG data acquisition using ADS1299 module on STM32 microcontroller
- Integration of the device with phones via BLE (GATT)
- Integration of the device with server via REST API (WiFi)
- TFTP protocol implementation for STM32 and SPWF01 module

Orion Project | Main embedded developer/Team Leader — 2016-2023

Orion Project is a student project of mars rover for European Rover Challenge, created by students on Lublin University of Technology

- Implementation of chassis and arm firmware on Arduino and STM32
- Implementation of network communications software between the rover and base station (PC) via GRPC
- And many more little side-projects and utilities that would take too long to list here...

PRIVATE PROJECTS

- HM-10 driver for STM32 (C++), along with custom RFComm protocol support and desktop app (C++/Qt)
- Mini weather station based on X-NUCLEO-IKS01A3 and BlueNRG-M2SP for BLE support, paired with an android app (Kotlin)
- Firmware for Orion Mini rover and it's controller, communicating via nRF24L01+ using JSON API (C++)

EDUCATION

Electronic School Group in Lublin | ITC Technician — 2013-2017

Lublin University of Technology | Computer Science Engineer — 2017-2021

Title of thesis: Analog data acquisitor based on RaspberryPi

Lublin University of Technology | MSc. in Computer Science — 2021-2023

Title of thesis: Comparative analysis of methods for tracking mobile robotic platforms