Lukasz Woznicki

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Experienced software/firmware engineer with over 5 years expertise in the field of embedded development. Particular experiences of ARM, PIC and Renesas microcontrollers as well as ARM microprocessors within IOT/M2M and Telecommunications. Comfortable with waterfall and agile development methodologies (including Scrum, Kanban and TDD) and software best practices.

## Skills and Competencies

Software Development C, Python, C++, C#, Perl, Bare Metal, RTOS, Embedded Linux

Toolchains IAR EW, KEIL MDK, GCC

Methodologies Scrum, Kanban, Waterfall

Technology 2G, 3G and 4G wireless technologies, Wi-Fi, ZigBee, Bluetooth, GPS, schematics and circuit diagrams

SCM / Tracking GIT, SVN, Jira, Confluence, Bugzilla

Team Change management, Build Integration

## Experience

## Software Engineer

## *CSL Dualcom, London, UK March 2015 - present*

Responsible for the research and development of various embedded and real-time applications and systems within the R&D team.

* Developed firmware for M2M 2G/3G/4G Cellular network analysis device based on Renesas microcontroller
* Designed and developed ARM Cortex M and FreeRTOS based, innovative IOT device for cellular and Wi-Fi scanning, positioning and signal analysis
* Developed for major Spanish client firmware in C for patent pending ultra-low powered remote medicine monitoring system using cellular and low frequency radio
* Developed LAN (TCP/IP) stack implementation in C for critical alarm transmission system devices
* Architected and developed handheld device application for fast data transfers using Embedded C++ and C#
* Developed mobile device to PC data transfer application in C# using OOP principles
* Developed application in C# for mass programming production line devices
* Developed USB device driver in C#
* Developed AES 256 encryption test simulator and server application that facilitated rapid prototyping and development using Python
* Reverse engineered communications protocol interfaces; Designed, documented and implemented communications using Embedded C and Python
* Coordinated build and release cycle along with managing Git repositories and assisted colleagues on Git workflow
* Designed SDR based pico cell network for laboratory cellular testing
* Performed low level competitor product investigation and provided due diligence report to senior management
* Liaised with senior engineers and product managers to translate MRD into technical requirements and specifications for next generation M2M hub; Contributed by evaluating and investigating selection of microcontrollers / microprocessors and operating systems

## Embedded Engineer

## *Enistic, Oxford, UK July 2014 - March 2015*

Main responsibilities included implementing and prototyping software using rapid development tools.

* Designed and implemented connected devices architecture to efficiently transfer data to data centre using Embedded C, SQL and Python
* Developed battery powered connected devices for high accuracy metering using low power and small footprint PIC and ARM microcontrollers
* Developed battery powered ZigBee and BLE connected devices for home automation
* Developed Connected building hub based on SBC running Linux and facilitating multiple connectivity technologies: ZigBee, BLE, CAN, Serial and Ethernet
* Architected communication logic for GPRS based devices to achieve maximum battery lifetime while retaining desired data flow
* Prototyped proprietary set of sensor to use with Connected Hub system for home and industrial environmental control with Arduino and Raspberry Pi

## Automation Software Engineer

## *InHome, Tarnow (Poland) April 2010 - April 2012*

* Designed Home Automation solution based on KNX protocol and Linux
* Implemented user interface for Home Automation system with Qt and C++

## Education & Qualifications

## Academic

### June 2010 Bachelor of Engineering, Electronics and Telecommunications Engineering, Wroclaw University of Technology, Wroclaw (Poland)

## Courses & Training

### October 2016 Confluence Hands on, CSL Dualcom

### February 2016 STM32 Cortex L4 Low Power Workshops, CSL Dualcom

### January 2016 Jira Hands on, CSL Dualcom

### January 2016 Introduction to Scrum, CSL Dualcom

### December 2015 STM32 ARM Cortex M7 Hands on, CSL Dualcom

### July 2009 SCO Unix Administration Certificate

## LANGUAGES

### Polish (fluent)

### German (intermediate)