

FRANCOIS BERDER

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I am a software engineer specialised in embedded systems, currently working as a freelancer.

EDUCATION

Imperial College London (London, UK) **2011 - 2015**
Master of Engineering in Computer Science
Lycée Français Charles De Gaulle (London, UK) **June 2011**
Scientific Baccalaureate with highest honours

WORK EXPERIENCE

Spin (Remote position, working from France) **July 2021 - December 2021**
Embedded Software Engineer

Development of an electric scooter rental service. Debugging firmware written in C on a STM32 running FreeRTOS. Used tools such as: smatch, cppcheck and clang static analysers. Refactored cmake configuration files.

ARM (Cambridge, UK) **October 2020 - May 2021**
Senior Software Engineer

Support for a build system written in Go, Python and Bash for C and C++ software running on Linux and Android platforms.

Kynesim (Cambridge, UK) **July 2017 - October 2020**
Embedded Software Engineer

Development of embedded systems solutions in a small consultancy company. Responsible for designing software architecture, implementing specifications and automated tests either alone or as part of a small team.

Key learnings:

- Experience writing firmware in C on various microcontrollers: MSP430, Cortex-M0 and Cortex-R4
- Wrote Linux applications in C++ running on TI AM3552 (ARM Cortex-A8)
- Learned how to read schematics, debug hardware prototypes

Imagination Technologies (King's Langley, UK) **January 2016 - June 2017**
Graduate Software Design Engineer

- Provided support for an IoT solution named Ci40 running OpenWRT
- Created a library in C and Python to interface Ci40 with many sensors
- Wrote production test software in Python using PyQt
- Implemented drivers for PIC32 peripherals in C on Contiki and RIOT-OS

IT SKILLS

Programs created: HAL for PIC32 for RIOT-OS and MyNewt OS (upstreamed), multithreading on Cortex-M4F, IoT water pump (includes designing PCB boards in Kicad), etc. Some of these programs are available at: <https://github.com/francois-berder>

Programming languages: C, C++, ARMv7-M assembly, Python, Bash, Go, Rust

LANGUAGES AND EXTRA CURRICULAR ACTIVITIES

Arts & Sports: Piano (10 years, Grade 8 - highest UK level), swimming, tennis, sailing, skiing
English: Fluent, **French:** Native, **Japanese:** Intermediate (JLPT Level 3)