

Franck Parat | Embedded Software Engineer

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Engineering skills

Key programming skills: C (bare metal), Python 2/3, VHDL (FPGA)

Embedded engineering: ADC, DAC, SPI, UART, I2C, timers, interrupts, HAL

Hardware skills: Debugging, usage of oscilloscope, soldering, reading of schematics and datasheets

Also: C++, Assembly, Java, Javascript, Typescript (Angular), Batch, LaTeX

Tools: Git, Subversion, Ceedling (test framework for C), Sphinx (documentation), "Unix" utilities

Want to learn or improve: Embedded Linux, Real-time OS, Rust, basic web development

Experience

ART Logics

Shanghai

Embedded Software Engineer

2014–2018

Worked on the logic implementation of key products of the company.

- Maintainer of the TCU/CCU firmwares, core products of the company (SPC56, PIC24):
 - Design and implementation of new features.
 - Port the code to the sibling product CCU100, and the successor TCU110;
 - Refactoring of the code for supporting multiple products with a single codebase.
 - Integrated unit testing and documentation generation in the workflow.
- Development and maintenance of FPGA "firmwares" (Xilinx Spartan 6):
 - Bug fixes and stabilization of boards in production;
 - Design and development of several boards.
- Design and development of smaller products based on PIC24, with LIN and UART interfaces.
- Creation of a desktop application for UART or Ethernet communication. Based on Python and wxWidgets.
- Development of a desktop application for the calibration of several products. Based on Python and Tkinter.

Education

National University of Singapore

Singapore

Exchange program

2013–2014

Exchange program for 2 semesters (Embedded Systems, Computer Science, Multimedia)

ENSEA

Cergy

Engineer degree (master level)

2011–2014

Graduate School of Electrical Engineering and Computer Science

Lycee Saint-Louis

Paris

"Classe Préparatoire aux Grandes Ecoles"

2009–2011

MPSI, PSI: Advanced Mathematics, Physics and Engineering Science

Languages

French: Mother tongue

Chinese (mandarin): Conversational

English: Fluent. TOEIC: 930, TOEFL: 93