Franck Parat | Embedded Software Engineer

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Skills

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

Embedded engineering: UART, SPI, CAN (FD), LIN, K-Line, I^{2}C, Ethernet, HAL, Drivers

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

Also: C++, Linux, Assembly, Bash, Batch, Docker, Latex

Tools: Versionning (Git, SVN), Testing (Ceedling, pytest), Documentation (Sphinx), "Unix" utilities

Experience

ART Logics   **Shanghai**

Automotive Testing Industry, Embedded Software Engineer   *2014–2020*

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

- Responsible of the embedded software of a generic test controller. (SPC56/58 (PowerPC), PIC24):
    - Design, implement, test, and document new features,
    - Refactored the code with a strict hardware abstraction layer for portability accross different hardware,
    - Integrated automatic unit testing and documentation generation in the development workflow.
- Develop and maintain FPGA logic implementations (Xilinx Spartan 6):
    - Bug fixes and stabilization of boards in production,
    - Logic design and implementation for several new products.
- Developed the firmware of smaller products based on PIC24, with LIN and UART interfaces.
- Created a GUI tool for controlling the products with UART/Ethernet. Based on Python and wxWidgets.
- Developed a desktop application for the calibration of several products. Based on Python and Tkinter.

Education

National University of Singapore (NUS)   **Singapore**

Exchange program   *2013–2014*

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

École Nationale Supérieure de l'Électronique et de ses Applications (ENSEA)   **Cergy**

Engineer degree (master level)   *2011–2014*

Graduate School of Electrical Engineering and Computer Science

Lycée 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