Franck Parat | Embedded Software Engineer

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Skills

Key programming skills: C (bare metal), 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++, Assembly, Bash, Batch, Linux, 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.
- Maintenance of the company core products firmwares (SPC56/58 (PowerPC), PIC24):
    - Design, implementation, test, and documentation of new features
    - Refactoring of the code with a strict hardware abstraction layer in order to support more platforms
    - Integration of automatic unit testing and documentation generation in the workflow
- Development and maintenance of FPGA logic implementation (Xilinx Spartan 6):
    - Bug fixes and stabilization of boards in production
    - Logic design and implementation for several new boards
- Firmware implementation for smaller products based on PIC24, with LIN and UART interfaces.
- Creation of a GUI tool for controlling the products with UART/Ethernet. 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 (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