

Gaëtan HARTER
French
Living in Berlin

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Embedded system and software engineer

8 years work experience

I enjoy low level concurrent code, write atomic commits, care about tooling and improve development with automated CI testing.

Work experience

2020	Software quality engineer for safety critical embedded system <i>MSA Safety Berlin</i> Review code and tests on SIL3 certified software. Emphasise role of code structure and readability. Push for more communication and discussion in the development process. Develop tools and test automation. Mentoring on software design, architecture, Yocto, git, C, Python, git, Bitbucket/Bamboo, SCIOPTA, VectorCast, SIL 3
2017 – 2019 github: @RIOT-OS	Rapstore - App store for the open source embedded OS RIOT <i>Freie Universität Berlin</i> Design and develop mechanisms for external board and software components development. Simplify automated hardware testing for developers. Integrate firmware update support. Address existing structure and timers/concurrency issues. Maintainer of the build system. Meticulous iterative development in an open source project with non expert peer reviews. C, Python, bash, RIOT Real Time OS, git, GNUMake, pytest, Jenkins, github
2011 – 2017 github: @iot-lab	Embedded development for large scale sensor testbed FIT-IoT-LAB <i>Inria Grenoble</i> Design and development of the testbed embedded software and network architecture. This includes the experiment control software in Python, realtime power and radio monitoring firmware in C-FreeRTOS on cortex-m3, embedded sniffer integration in Wireshark, Yocto-Linux distributions, deployment over NFS to 500+ boards in parallel, IPv6 /55 prefix. Implementation of the on hardware continuous integration process, with Yocto and software deployment and on target unit and integration testing. Target of 100% branch coverage. Development of experimentation tools and firmwares. In charge of user support. C, Python, ARM-CortexM3, RTOS, Yocto, IPv6, Jenkins, CI automated tools
Teaching 2 years Internship	Development of an OS with virtual memory on x86 <i>Grenoble INP - Ensimag</i> Post assertion core dump solution for a embedded system DO-178B <i>THALES</i>

Education

2008 – 2011	Master in embedded systems and softwares engineering <i>Grenoble INP - Ensimag</i> ASM/C/Object oriented, concurrent systems, operating system, Linux device driver
2006 – 2008	Highly selective classes preparing for competitive exams <i>Prépa Kleber</i>

Technical skills

Languages	Low level concurrent C, Python, Bash, Assembly
Tools	GNU/Linux, Advanced git, Yocto, Jenkins, GNUMake, Terminal fluent, vim
Testing	Unit and integration tests, setup of an on target CI process, test and code coverage reports

Languages

French	Mother tongue
English	Working knowledge and conversational. Working in English for 8 years
German	Conversational, good oral comprehension, Level B2

Activities

Free Time	Metal music, beer tasting, cooking, video games, board games, climbing
Volunteering	Treasurer: Beer tasting and concert production non profit organizations University: In charge of the Cafeteria, Food events organization and purchasing expert

References available upon request.