

# Senior Embedded Linux system Engineer

## Thomas Perrot

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## Technical Skills

**Operating Systems:** Linux, OpenEmbedded, Yocto, Buildroot, RIOT-OS, Android, ROS

**Bootloader:** U-boot, TF-A, at91, OP-TEE

**Architectures:** x86-64, ARMv7, AMRv8, PowerPC

**Platforms:** QorIQ, ARMADA-37xx, i.MX6, i.MX7, i.MX8, STM32MP1, SAMA5

**Languages:** Python, C, Makefile, Bash

**Version control:** git, git-repo

**Tools:** Jira, Gerrit, Qemu, GDB, Valgrind, Lauterbach, Saleae, Podman

**Software Design:** MDA, OCL, UML

**Standards:** DO178B DAL A, EABI, ISO C99, POSIX

## Personal achievements

Volunteer open source contributor

Part time job to finance my studies

Master Degree with honnor

Winner of the « 2009 IT night ».

## Education

**2011:** Master Degree (5 years)

Architecture of critical and real-time embedded systems

**2010:** Master Degree (4 years)

Embedded and real-time systems and Modeling of software components

**2009:** Bachelor's degree of Fundamental IT

## Languages

**French:** mother tongue

**English:** intermediate

## Additional information

Linux technologist and free software enthusiast

Hobbies: IT, IoT, robotics, trekking, atv

## Experiences

### December 2020 - Present: Embedded Linux and kernel Engineer

Permanent job in **Bootlin**, Toulouse.

- Linux kernel porting and device driver development.
- Integration of open-source components and system building.

### July 2015 - December 2020: Embedded Linux Engineer

Permanent job in **SIGFOX**

- Platform design and bring-up.
- Board Support Packages: firmware, bootloader, kernel.
- Core system components: boot, partitioning, OTA upgrade.

### April 2014 - July 2015: Android System Integrator

Permanent job in **Intel Android SI NPI** on behalf of Celad & SHT, Toulouse.

- Introduce and maintain new Pre-silicon platforms under Android mainline.
- Publish releases, best know configurations and methods.
- Bring up, build, first boot and power-on support.

### February 2014 - March 2014: ROS System Integrator

Permanent job in **Sogeti High Tech**, R&D, Toulouse.

- Design a embedded ROS node with ROSc for coOS and a custom ROS bridge for Unicom framework.

### August 2011 - February 2014: Embedded system software engineer

Permanent job in **Airbus S.A.S** on behalf of Sogeti High Tech, Toulouse.

- Development and operation maintenance of primary flight control Airbus A380 and A400M.
- Embedded code WCET optimization and certification analysis.

### February 2011 - August 2011: Research assistant / ROS System Developer

Temporary job of 5 months in **Office National Études et de Recherches Aéronautiques**, Toulouse.

- Design and implement with ROS a tool to simulate the communication between different software modules of heterogeneous critical systems.

### October 2010 - February 2011: Internship / VHDL Processor Designer

Internship of 5 months in **Atelier Interuniversitaire de Micro-nano Électronique**, Toulouse.

- Design a 32-bit scalar pipelined RISC processor in-order Harvard architecture.

### Febuary 2010 - August 2010: Research assistant / Worst Case Execution Time Analysis

Temporary job of 6 months in **Institut de Recherche en Informatique de Toulouse**, Toulouse.

- Temporal analysis of parallel processus on multi-core processors.

### February 2009 - June 2009: Intership

Internship of 6 months **Artilect FabLab**, Toulouse.

- Realization of a simulator for physical-based tetrahedral robot with real-time 3D rendering platform.