







THOMAS LEPOIX

Embedded systems engineer (FR)

COORDINATES

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EU licence : B 
1996 

SKILLS

Embedded Linux (Yocto)	●●●●
C / Modern C++	●●●●
Electronics (LF, HF, EMC)	●●●●
Free tooling / GNU	●●●●
Shell scripts	●●●●
LaTeX	●●●●
DevOps (CMake, Docker, Debian)	●●●○
Bus (UART, SPI, I2C, CAN, etc.)	●●●○
English	●●●○
Microcontrollers (8 bits / ARM)	●○○○
Assembly CISC Freescale	●○○○
Network / infra	●○○○
VHDL / SoPC	●○○○
Python	●○○○

DEGREES

2017 - 2019
Embedded systems Master
ESTEI / Ynov - Bordeaux

2016 - 2017
**Embedded systems
& robotics Bachelor**
ESTEI - Bordeaux

2014 - 2016
**Digital systems
electronics & communication BTS**
Lycée Jean-Baptiste de Baudre - Agen

2012 - 2014
BAC S - SVT
**Specialization Informatics
& digital science**
Lycée Bernard Palissy - Agen

PROFIL

Character

Determined, perfectionist, observer

Hobbies

Music, arts, cooking,
free & opensource software

PROFESSIONAL EXP

June 2021 - December 2021

Mission - Altran for Dassault Aviation, Bordeaux

Developer (C++)

- Work on a prototyping simulator
- Very large project (~20000 source files)

June 2019 - February 2020

Internship & contract - DMIC / Ubiwan, Bordeaux

Back-end developer (C++)

- Development of a performance measurement framework
- Feasibility study of a new solution
- Separation of a program : internal library / business logic
- Profiling (Hotspot, Valgrind, Heaptrack), debug, optimization
- Migrating old Delphi programs to C ++

PERSONAL PROJECTS

October 2018 - Present

Improvement of the RF hardware free production environment

Objective: An alternative to proprietary and expensive software

- Creation of the free software Qucs-RFLayout
- Co-creation of the project Open-RFlab
- Contribution to Qucs and OpenEMS electronic simulators
- Community federation
- Work in C++ / Qt and in english
- Collaborative roadmap with the community

May 2020 - Present

Raisin : Control Flow Graph generator from C++ code

Initiative and project co-creation

- Using LLVM/Clang libraries
- Compiler-level work on C ++ language syntax
- Work in C++, OOP, design patterns, peer programming
- Emerging project
- No available FOSS equivalent currently

July 2021 - Present

Work on the state of the art of C ++ development tools

- Creation of a CMake utils library
- Creation of a development container
- Contribution to Metashell
- Static analysis, fuzzing, tests & coverage, runtime analysis
- Profiling, optimizations
- Packaging, documentation, CI

SCHOOL PROJECTS

November 2018 - June 2019

Team building of a 3D printed robotic telescope

- System architecture
- Team coordination
- Full hardware engineering (pluggable on Raspberry Pi)
- Full OS engineering (Yocto)
- Development of a GPS driver in C