Robin Marin–Muller

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Education

INSA Toulouse — Toulouse, France
Specialization in Automation, Electronics, and Computer Science — *2022 – Present*

DUT GEII (Embedded Systems Option) — France
University Diploma in Electrical Engineering and Industrial Computing — *2020 – 2022*

High School Baccalauréat — France
General Scientific with Engineering Sciences and Digital Sciences — *2017 – 2020*

Brevet d'Initiation à l'Aéronautique (BIA) — France
Aviation Introduction Certificate — *2017 – 2018*

Professional Experience

CNES (French Space Agency) — Toulouse, France
DevOps and Embedded Software Engineer (Apprenticeship) — *2022 – Present*
- Automated the embedded software development pipeline for satellite systems.
- Developed and tested embedded software for space applications.

FentISS — Valencia, Spain
Software Engineer Intern — *2024*
- Worked on the space-qualified hypervisor XtratuM and its associated simulator SKE.
- Optimized the execution of the SKE simulator by tuning Linux kernel parameters.

Ikalogic — Limoges, France
Embedded Software Developer (Internship) — *2022*
- Developed C++ software for a logic analyzer tool.

Thales Communications & Security — Brive-La-Gaillarde, France
Observation Intern — *2017*
- Observed production chain and business engineering processes.

Academic Projects

Thrust Vectoring Module for Rocket Models — 2022
- Developed a module to control thrust direction for model rockets.

Development of a Processor in VHDL — 2023
- Designed a RISC-V processor with a 5-stage pipeline using VHDL.
- Implemented the processor on an FPGA for testing and validation.

Non-Intrusive Water Leak Detection System — 2024
- Implemented harmonic analysis and machine learning techniques for leak detection.

Personal Projects

DIY Drone — 2016
- Built and programmed a custom drone for hobby purposes.

Autonomous Flying Wing for Terrain Reconnaissance — 2024 – Present
- Designed an autonomous flying wing system for real-time terrain mapping.

Technical Skills

Software Engineering: C/C++, Rust, Python, Git, GitLab CI/CD, Docker, Jenkins, TensorFlow, Scikit-learn, NumPy

Electrical Engineering: PCB Design (Altium, KiCAD), LTSpice, SolidWorks, Fusion360, 3D Printing, STM32, ESP32, VHDL

Automatic Control: MATLAB, Simulink, PID Control, Non-linear Systems

Misceleaneous: Blender, Adobe Suite, Manim, LaTex, OpenStack, IoT Networks