

# Robin Marin–Muller

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## EDUCATION

<b>INSA Toulouse</b> <i>Specialization in Automation, Electronics, and Computer Science</i>	Toulouse, France 2022 – Present
<b>DUT GEII (Embedded Systems Option)</b> <i>University Diploma in Electrical Engineering and Industrial Computing</i>	France 2020 – 2022
<b>High School Baccalauréat</b> <i>General Scientific with Engineering Sciences and Digital Sciences</i>	France 2017 – 2020
<b>Brevet d'Initiation à l'Aéronautique (BIA)</b> <i>Aviation Introduction Certificate</i>	France 2017 – 2018

## PROFESSIONAL EXPERIENCE

<b>CNES (French Space Agency)</b> <i>DevOps and Embedded Software Engineer (Apprenticeship)</i> <ul style="list-style-type: none"><li>Automated the embedded software development pipeline for satellite systems.</li><li>Developed and tested embedded software for space applications.</li></ul>	Toulouse, France 2022 – Present
<b>FentISS</b> <i>Software Engineer Intern</i> <ul style="list-style-type: none"><li>Worked on the space-qualified hypervisor XtratuM and its associated simulator SKE.</li><li>Optimized the execution of the SKE simulator by tuning Linux kernel parameters.</li></ul>	Valencia, Spain 2024
<b>Ikalogic</b> <i>Embedded Software Developer (Internship)</i> <ul style="list-style-type: none"><li>Developed C++ software for a logic analyzer tool.</li></ul>	Limoges, France 2022
<b>Thales Communications &amp; Security</b> <i>Observation Intern</i> <ul style="list-style-type: none"><li>Observed production chain and business engineering processes.</li></ul>	Brive-La-Gaillarde, France 2017

## ACADEMIC PROJECTS

Thrust Vectoring Module for Rocket Models <ul style="list-style-type: none"><li>Developed a module to control thrust direction for model rockets.</li></ul>	2022
Development of a Processor in VHDL <ul style="list-style-type: none"><li>Designed a RISC-V processor with a 5-stage pipeline using VHDL.</li></ul>	2023
Non-Intrusive Water Leak Detection System <ul style="list-style-type: none"><li>Implemented harmonic analysis and machine learning techniques for leak detection.</li></ul>	2024

## PERSONAL PROJECTS

DIY Drone <ul style="list-style-type: none"><li>Built and programmed a custom drone for hobby purposes.</li></ul>	2016
Autonomous Flying Wing for Terrain Reconnaissance <ul style="list-style-type: none"><li>Designed an autonomous flying wing system for real-time terrain mapping.</li></ul>	2024 – Present

## TECHNICAL SKILLS

<b>Software Engineering:</b> C/C++, Rust, Python, Git, GitLab CI/CD, Docker, Jenkins, TensorFlow, Scikit-learn, NumPy
<b>Electrical Engineering:</b> PCB Design (Altium, KiCAD), LTSpice, SolidWorks, Fusion360, 3D Printing, STM32, ESP32, VHDL
<b>Automatic Control:</b> MATLAB, Simulink, PID Control, Non-linear Systems
<b>Miscellaneous:</b> Blender, Adobe Suite, Manim, LaTeX, OpenStack, IoT Networks