SIMÓN AULET

Electronic engineering - RF - FPGA

As I complete my Electronics Engineering degree, I seek a team where my extensive background in customer service and gastronomy – which honed my ability to solve problems under pressure – complements my technical mindset: thoroughly understanding fundamentals before implementation, adapting to dynamic situations, and contributing to projects with tangible impact. If you're looking for someone who listens, asks questions when needed, and rolls up their sleeves until problems are solved, I'm your person!

INFO

Name
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Portfolio
simonaulet.github.io/portfolio/en

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Final stages of an Electronic Engineering degree.

English: fluent technical reading and oral communication.

Instrumentation

- Oscilloscopes
- Vector Network Analyzers
- Spectrum Analyzers
- RF Signal Generators

Software / Languages

- Vivado
- Verilog
- KiCad
- LTSpice
- Python (NumPy, Matplotlib, scikit-rf, Jupyter)
- C / C++
- Keysight ADS
- CST Studio Suite
- Rust (learning)

TECHNICAL SKILLS

RF / Microwave Engineering

Design, simulation, manufacturing, and characterization of high-frequency circuits and antennas, with end-to-end practical experience. Work includes RF circuit design and optimization in **Keysight ADS** and 3D electromagnetic antenna simulation in **CST Studio Suite**, manufacturing of **RF PCBs on Rogers substrates** using **CNC**, and experimental characterization with **Rohde & Schwarz VNA** and measurements in **anechoic chambers**, with subsequent analysis in **Python** (scikit-rf, NumPy, Matplotlib).

Projects:

-- **Wilkinson Divider 1 GHz – design, manufacturing, and experimental validation**

-- **Antenna simulation and analysis in CST**

Analog Electronics & Circuit Design

Development of analog systems from analysis and simulation to prototyping and PCB design. Experience with bench testing, simulation in **LTSpice** and design in **KiCad**, including a **6-layer multilayer PCB for an analog satellite control system**, with management of sensitive signals and net classes.

-- **6-layer PCB project**

Digital Design with FPGA & Verilog

Digital system design in **Verilog** for **Artix-7 FPGAs**, covering the complete workflow in **Vivado**: simulation, synthesis, IP implementation, and physical prototyping.

-- **Practical projects (state machines, ALU, control systems)**

Embedded Systems & Development

Firmware and embedded systems development in **C** and **assembly** for **PIC** and **ESP32**, with peripheral and protocol management (**ADC, I2C, UART**), **WiFi** connectivity integration, and embedded web servers. Experience in network configuration with **MikroTik**, use of **Python** for measurement analysis and instrumentation, and work in **GNU/Linux** environment with **Git**.

Projects:

-- **ESP32 WiFi configurator**

-- **PIC / ASM development**

Geospatial Analysis / Remote Sensing

Introductory experience in remote sensing and environmental analysis using spectral indices (NDVI, SAVI, NBR) with **Google Earth Engine**, **QGIS**, and **SNAP**. -- **Project: environmental remote sensing analysis**

TECHNICAL PORTFOLIO

RF

Simulated Antennas - Design Compilation
simonaulet.github.io/portfolio/en/antenas

Wilkinson Power Divider – 1 GHz
simonaulet.github.io/portfolio/en/wilkinson

Analog

6-Layer PCB Design - Analog Satellite Control System
simonaulet.github.io/portfolio/en/PCB

Digital

FPGA & Digital Systems Design Portfolio
simonaulet.github.io/portfolio/en/FPGA

Programming

Web Configuration System for Embedded Devices
simonaulet.github.io/portfolio/en/ESP32

Embedded Systems Fundamentals with PIC
simonaulet.github.io/portfolio/en/pic

Environmental Remote Sensing Analysis
simonaulet.github.io/portfolio/en/teledeteccion

WORK EXPERIENCE

Café Delirante *2016 - Present*

My journey here had two distinct stages, both defined by clear decisions.

- **Manager (2017 - 2021)** I took charge of managing **5 coffee shops** during a period of company expansion (we grew from a single café to a roastery supplying third parties, franchises, and our own locations). My work involved **launching and making each new opening operational**: from **assembling and training the team** (over 20 people) to solving any day-to-day problems. It was intensive training in **translating strategic vision into practice under constant pressure**.
- **Roasting & Equipment Manager (2021 - Present)** In 2021, I chose to change direction to advance my engineering career. I reduced my involvement in management to fully immerse myself in the technical side of the business:
  - **Roasting:** I am **responsible for the roasting process**. I design recipes and produce most of the coffee the company sells, supervising the remaining production. This represents over **3000 hours** of machine operation, entirely focused on the process.
  - **Maintenance & Technical Management:** I am **comprehensively responsible for the operation of the equipment fleet** (from specialized roasting machines to café equipment). This includes everything from **selection and purchase of new equipment** and **maintaining a spare parts inventory**, to **executing or coordinating all repairs and installations**. My deep knowledge of key equipment (like the main roaster) avoids costly external dependencies and ensures operational continuity.

  This is the combination I sought: practical technical work that respects the time and energy I dedicate to becoming an engineer.

Various Jobs *2010 - 2016*

Before that, my training was **practical and direct**: customer service, kitchen work, restocking, and operations in various businesses (Chocolatería Del Turista, Resto Puerto Petunia, among others). There I learned to navigate dynamic environments and solve problems on the spot.