

# DANIEL PAYNO ZARCEÑO

Telecommunications & electronics engineer

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Madrid, Spain

daniel-payno-zarceño

dpayno



## ABOUT ME

Telecommunications engineer with a deep passion for electronics and programming, specializing in embedded systems and Linux-based operating systems. I enjoy embracing new challenges and contributing to innovative work environments.

## EXPERIENCE

### Hardware & firmware engineer

#### TycheTools

August 2020 – April 2025

Madrid, ES

Company specialized in **data center energy efficiency**, focused on environmental monitoring, and cooling system control.

- Hardware engineering:** requirement gathering, PCB design and manufacturing, assembly, prototyping, and testing. Purchasing management, communication with suppliers, and RFQs.
- Firmware engineering:** design and implementation of embedded systems, including microcontroller programming, communication protocols, and sensor networks.
- Software development:** development of Linux-based systems using Yocto, and implementation of C and Python applications.
- Data center experience:** installation of sensor networks, cooling optimization and energy consumption management.

### Electronic Research Internship

#### GreenLSI (Department of Electronic Engineering, ETSIT)

May 2020 – August 2020

Madrid, ES

- Research and development of Bluetooth Mesh networks based on Nordic nRF52 microcontrollers.

## TECHNICAL SKILLS

### Programming languages:

C/C++ Python Bash Dart

### Microcontrollers:

Nordic ESP ST AVR PIC ARM

### Communication protocols:

I2C SPI UART RS232 RS485 Wi-Fi BLE LoRa  
NFC MQTT Modbus SNMP Raft

### Development tools:

Git Linux Makefile Docker Yocto L<sup>A</sup>T<sub>E</sub>X  
Markdown PlatformIO

### Design tools:

KiCad 2D/3D CAD Blender

### Others:

API REST NGINX MySQL SQL Django FastAPI LVGL  
Flutter Raspberry Pi Wireshark Jira Agile

## EDUCATION

### Master of Science in Electronic Systems Engineering

#### Universidad Politécnica de Madrid, ETSIT

2021 – 2022

Madrid, ES

Final Master's Degree Project: Design and implementation of a sensor network for air quality monitoring (10/10)

Award for the best record in the 2021-2022 academic year. Sponsored by Fundetel.

### Bachelor of Engineering in Telecommunication Technologies and Services Engineering

#### Universidad Politécnica de Madrid, ETSIT

2015 – 2020

Madrid, ES

Final Degree Project: Design and implementation of a MIDI controller for aero-phone instruments (10/10)

## LANGUAGES

Spanish



English



## SOFTSKILLS

- Problem-solving:** experience in project development with multi-disciplinary teams.
- Teamwork:** ability to analyze complex situations and find effective solutions.
- Adaptability, flexibility:** willingness to learn and adapt to new technologies and work environments.
- Agile methodologies, Scrum:** experience in project management using agile methodologies.

## OTHERS

- DIY projects:** 3D printing, self-hosted services Immich InfluxDB  
Home Assistant Grafana
- Design of electronic music devices.
- Driving license B** and own car.