

# DANIEL PAYNO ZARCEÑO

Telecommunications & electronics engineer

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## 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

 C/C++    Python    Bash    Dart

 Nordic    ESP    ST   AVR   PIC   ARM

I2C

SPI

UART

RS232

RS485

Wi-Fi

BLE

LoRa





NFC




MQTT

Modbus

SNMP


Raft

 Git    Linux    Makefile    Docker   Yocto


 LaTeX    Markdown    PlatformIO


KiCad

2D/3D CAD

 Blender

API REST


 NGINX


 SQL


Django

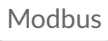
FastAPI

LVGL

 Flutter

 Raspberry Pi

 Wireshark

 Jira


Agile


Product development

## EDUCATION

### Master of Science in Electronic Systems Engineering

#### Universidad Politécnica de Madrid, ETSIT

 2021 – 2022     Madrid, ES

 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

## LANGUAGES

Spanish 

English 


## SOFTSKILLS

- Problem-solving
- Teamwork
- Adaptability, flexibility
- Agile methodologies, Scrum

## PROJECTS


Design and implementation of a sensor network for air quality monitoring

#### Final Master's Degree Project





 January 2022

Design and implementation of a MIDI controller for aerophone instruments

#### Final Degree Project

 January 2020

## OTHERS

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