# **Daniel Bretón Suárez**



# Contact data

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**Embedded software engineer** with experience in electronic design and product development.

#### Skills

#### Software

Mastered languages C, C++

Other languages Python, Bash, Assembly (multiple), Matlab/Octave, Java

Static analysis Valgrind, GNU debugger, cppcheck

VCS Git, Subversion

DevOps Gitlab, **Github**, Jenkins Documentation Doxygen, markdown

Distribution Software releases, changelogs

Product development

Bug reporting, continous integration, unitary tests

Project

management Schedule, milestones, activities, deliverables

management

Team Documentation, workflows, wellness, code reviews, best

management practices

#### **Embedded**

Architectures 8-bit ARM, 32-bit ARM, 8-bit PIC, 8051, embedded

debian

Low-level

communications

SPI, UART, I2C

MCU knowhow IRQs, low-power management, bus clocking, RTC

RF RFID, Bluetooth, NB-IoT, 4G, 3G, 2G, LoRa,

868Mhz/433Mhz p2p radios

Electronics Analysis, simulations, Schematics, PCB design

Laboratory Soldering, multimeter, Oscilloscope, signal debugging

#### Industrial devices

Long-lasting devices Aging tests, defective analysis, patches

Manufacturing Manufacturing instructions, integration, training

Office basics

Operative systems Windows, linux (debian based), virtual machines

Networking ssh, remote desktop, server administration

Microsoft office suite Word, Excel, Power point

### Education

## University

**Master of Science** in **telecommunications engineering** conducted at Universidad de Oviedo. Asturias, Spain.

- Strong focus on calculus and algebra. Including mathematical modeling and simulations.
- Electronic theory, simulations and prototyping for power electronics, control and communications.
- Software engineering foundations. OOP and embedded devices. Computational complexity, algorithms, computer science and network architecture.
- Signal theory and stochastic processes for telecommunications systems modeling.
- Strong focus on electromagnetism theory. Antenna prototyping.
- Project management, feasibility and viability analisys.
- Technical drawing and CAD basics.
- Classical physics and quatum theory basics.
- · Basics on economics.

### **Post-graduate education**

Subject	Company	Year
Remote team management	GitLab	2021
Gitlab best practices	ZIV	2021
Cybersecurity at work	ZIV	2021
Doxygen best practices	ZIV	2021
Unitary tests and continous integration	ZIV	2020
Static code analysis tools	ZIV	2020
GNU Autotools	ZIV	2019
Introduction to PRIME	ZIV	2019
First Aids	Tecnalia	2019
Code style	Tecnalia	2019
Electrical risks and security	Tecnalia	2019
Introduction to A.I	Standford University	2019

#### Languages

Spanish: Native

• English: Advanced user. Cambridge English CEFR level C1

#### Awards

#### 2015 Third Prize Paper Award.

The Trasportation Systems Committee of the IEEE Industry Applications Society.

For the manuscript co-authored with M. Arias, M.M. Hernando, U. Viscarret and Iñigo Gil, entitled "Equalization system for serially-connected battery cells based on the wave-trap concept" as presented at the 2014 Energy conversion Congress and Exposition, Pittsburgh, PA, USA.

#### **Codingame**

#### C languaje certification



# Profesional experience

Role	Company	Duration
Embedded software engineer $^{\mathrm{1}}$	<b>ZIV Automation</b>	From september 2019
Embedded software engineer	Tecnalia	1 year
HW/FW engineer	Treelogic	3 years
Software engineer	Capgemini	6 months
Power electronics researcher	Ikerlan	1 year
Sound technician	multiple locations	-

## Interests

Music, hicking, running, science, homebrew beer, culture, gastronomy

# Other links of Interest

https://www.linkedin.com/in/dabresua/ Linkedin Personal https://dbsportfolio.wordpress.com/

Codingame https://www.codingame.com/profile/2625279a1335abf00c9f39761c7dac300941673

**Codewars** https://www.codewars.com/users/dabresua

**Github** https://github.com/dabresua

Last modification: 07/11/2021

portfolio

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1. International experience on Saudi Arabia 2020.←