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Visit my website!

# **EDUCATION**

Bachelor of Engineering
Industrial Electronics and
Automation Engineering
Universitat Politècnica de València
2017 - 2022

Master of Engineering Artificial Intelligence Universidad de Murcia 2024 - 2025

### CERTIFICATES

Digital Signal Processing (DSP)
Specialization
École Polytechnique Fédérale de
Lausanne
View certificate

#### LANGUAGES

Spanish: Native

English: Full Professional

proficiency

French: Intermediate

### **HOBBIES**

Audio & Music: Over 10 years of music production, instrument performance since age 8.

Wellness: Strength training, healthy diet, snowboarding, and skiing

# JAVIER GARCÍA

# EMBEDDED ELECTRONIC ENGINEER DSP, AI AND POWER ELECTRONICS

### PROFESSIONAL SUMMARY

Passionate and committed, with a strong technical and creative profile. Over 2 years of experience in electronics and embedded systems. My interest in audio led me to specialize in DSP. A Master's in Artificial Intelligence (AI) enhances my technical skill set. My background covers both HW and SW development for consumer products, power converters and research devices.

### **SKILLS**

Programming languages: C, Python, C++, MatLab.

DSP & Audio: Digital filter design (fixed/float, CMSIS-DSP), Convolution, FFT, room acoustics measurement, speaker modeling.

Embedded Systems: STM32 Cortex-M, ESP32, TI C2000, FREERTOS, bare-metal.

Peripherals: Experienced with ADCs, DMA, UART, I2C, I2S and Cache.

Deep Learning tools: TensorFlow, Pytorch, Accelerate.

Version Control tools: Git, Github.

Other SW tools: Docker, Apptainer, SSH.

IDEs: Eclipse (STM32CubeIDE, Code Composer), VSCode.

CAD: Altium, CadStar, Fusion360.

Hardware Development: Analog circuit simulation (LTSpiece), PCB design, component selection, HW validation, SMD soldering.

## **WORK EXPERIENCE**

Embedded DSP Developer / RemoVerb Project

05-04-2023 - present

Development of an innovative real-time reverb cancelling embedded system for speaker correction, using Deep Learning and Reinforcement Learning.

- Full system design in STM32H7, from concept to deployment.
- Bluetooth audio (QCC5125), DSP algorithms, intensive code optimization.
- Hardware design, App development, CNN with TensorFlow.

Firmware Engineer / Versa Design Valencia / 08-01-2024 - 09-03-2024

Firmware development for STM32 and ESP32.

• Low-Layer API and HAL for STM32 MCUs. ESP32 - FREERTOS

Signal Hardware Engineer / ZIGOR Valencia / 03-10-2022 - 31-12-2023

Hardware development for mixed-signal PCBs, as part of the development of power distribution network converters.

- Mixed Signal PCB design, up to 20KV isolation barriers, IPC-2221, Stackup design, GIGABIT, USB and other high-speed signals.
- Signal and EMI filter design and implementation.
- Hardware simulation, combinational and analog systems, component selection, mechanical design, research and documentation.

R&D Scholarship, Embedded Software / IDM - UPV Valencia / 01-04-2022 - 31-07-2022

Embedded software development for microcontroller communication and power electronics on various research projects.

- DSP and microcontroller programming (Texas Instruments, ESP32).
- Communication protocols (I2C, MODBUS TCP/IP, RS485, UART).
- Windows app programming in C++