

Jaime Castresana Iza

Software Engineer | Audio, AI & Product Development

Software engineer with an MSc in Sound and Music Computing, experienced in commercial engineering software, audio R&D, and AI-assisted technical products. I turn complex specialist workflows into reliable, user-focused tools through product thinking, structured validation, and cross-functional collaboration.



CONTACT

EMAIL

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LOCATION

Copenhagen, Denmark

GITHUB

github.com/jci24

WEBSITE

jaimecastresana.com

CORE COMPETENCIES

PRODUCT ENGINEERING

Technical product development · Workflow mapping and UX · Testing and validation · POC-to-release delivery

AUDIO & SIGNAL

Acoustic analysis · Sound quality · Embedded audio and DSP · Measurement workflows

AI & AUTOMATION

LLM application development · Tool calling · Agent-style workflows · Automated evaluation

CORE TOOLS

C#/.NET

React

TypeScript

Python

MATLAB

C/C++

Git

CI/CD

REST APIs

Azure DevOps

DEVELOPMENT

Selected by management for the one-week Effective Communication Skills for Professionals programme.

BEYOND WORK

Music producer for independent artists in Spain, including Suave, winner of VillaSound Festival Bilbao 2021.

LANGUAGES

Spanish - Native
English - C1
Danish - A2
French - B1

PROFESSIONAL EXPERIENCE

Hottinger Brül & Kjær

Sep 2023 - Present

SOFTWARE ENGINEER

- Helped develop commercial acoustic-engineering software from proof-of-concept and MVP stages toward product release.
- Built C#/.NET APIs and React workflows for analysing, comparing, and visualising complex acoustic data for technical users.
- Worked with application engineers, acoustic specialists, Product Owners, designers, and architects to translate domain needs into usable features.
- Improved delivery reliability through automated testing, validation workflows, code review, documentation, and Azure DevOps CI/CD.

ICEpower A/S

May 2022 - Jun 2023

R&D SOFTWARE ASSISTANT

- Supported audio-amplifier R&D through software development, Python automation, testing, analysis, and network stress-test workflows.
- Modelled digital crossover responses in MATLAB and implemented selected filters in C++ on ARM Cortex-M7.
- Validated a physical two-way loudspeaker through microphone measurement and iteration on simulated and measured frequency and phase behaviour.

EDUCATION

MSc Sound and Music Computing

2021 - 2023

Aalborg University, Copenhagen Campus

BSc Industrial Technology Engineering

2015 - 2020

University of Deusto

SELECTED PROJECT

SoundLens

INDEPENDENT PROJECT

EVIDENCE-BASED ACOUSTIC INVESTIGATION PLATFORM

github.com/jci24/SoundLens

- Combines deterministic DSP evidence, comparison workflows, reporting, and user-focused acoustic investigation.
- An AI Copilot uses structured tool calls to explain validated results, preserve limitations, and refuse unsupported conclusions.

C#/.NET

React

TypeScript

DSP

LLM Tools

➤ FROM SPECIALIST WORKFLOW TO VALIDATED PRODUCT