

Santiago Hoyos.

SOLUTIONS CONSULTANT · PRE-SALES & TECHNICAL DESIGN

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01 PROFILE

Technical solutions consultant who designs systems and sells them. Two years gathering requirements, specifying, pricing and defending integrated technology systems for high-end residential and commercial clients in London, from first conversation through proposal to commissioning, on top of earlier acoustic consulting and client-facing technical sales. Builds the automation around that work: a self-built AI orchestration system that routes each task to the cheapest capable model under a hard cost budget with human approval gates, and a Python tool that generates cable and equipment schedules straight from CAD drawings. Networking side is IP infrastructure for real-time media: VLANs, QoS, multicast and PTP clocking, with Dante as the applied stack. MSc in collaboration with Sony Interactive Entertainment and a peer-reviewed publication.

02 BUILT

AI Orchestrator

santiagohoyos.dev/work/software/ai-orchestrator

Self-built Python AI orchestration system running a full engineering workspace: routes each task to the cheapest capable model (local models through cloud LLMs), keeps persistent memory across sessions, and runs scheduled autonomous jobs under a hard token budget with human approval gates. Most routine work resolves on free local models, so the running cost stays near zero while scheduled jobs execute unattended.

GA Extractor

santiagohoyos.dev/work/software/ga-extractor

Python tool that reads general-arrangement CAD drawings and generates the cable and equipment schedule workbook automatically, verified by diffing against a hand-built reference. Turns hours of error-prone retyping per drawing revision into a single command.

03 EXPERIENCE

Audio-Visual Systems Designer

2024 to present

[Perfect Integration, London, UK](#)

Designs and commissions integrated audio and AV systems for high-end residential and commercial environments, including office spaces. Writes and prices client-facing technical proposals. Works directly with clients and architects, translating technical constraint into commercial and design language. Produces signal-flow schematics, equipment layouts and coordination drawings. Manages commissioning preparation and calibration workflows across distributed audio.

Technical Audio Advisor (Sales)

2024

[Devialet at Harrods, London, UK](#)

Customer-facing role at the flagship Devialet store, demonstrating premium audio systems to buyers. Advised on listening-environment fit, system optimisation and calibration for high-end domestic setups. Initiated and built an internal iOS (Swift) inventory-management app that the store team adopted into daily workflow.

Acoustic Consultant

2021 to 2022

[GSA SAS, Medellin, Colombia](#)

Assessed acoustic pollution for construction and manufacturing companies. Combined on-site measurement campaigns with acoustic modelling to diagnose noise issues and recommend mitigation. Delivered 20+ projects and technical reports, including CAD-based regulatory-compliance documentation.

04 SKILLS

Commercial

Pre-Sales & Proposals

Client-facing technical proposals, pricing, requirement gathering, translating technical constraint into commercial language, technical demonstration to buyers

Design

Systems Design

Signal-flow schematics, equipment layouts, coordination drawings, topology, specification, bills of materials, commissioning, calibration

AI

Automation & LLM Tooling

LLM and agent tooling, model routing and cost control, retrieval and persistent memory, scheduled autonomous jobs with approval gates

Protocols

Networked Media & Control

IP networking for real-time media: VLANs, QoS, multicast, PTP clocking, switch configuration and network topology design, with Dante audio-over-IP as the applied stack (certified L1 and L2). Control systems, fast pickup of new vendor stacks

Code

Software

Python, C++/JUICE, MATLAB, Swift, TypeScript

Measurement

Acoustics & Measurement

Room acoustics, impulse-response capture, environmental noise, compliance reporting, acoustic modelling

05 RESEARCH

Acoustic Scattering for Virtual Applications (MSc dissertation)

2023

Sony Interactive Entertainment / University of York

MATLAB simulation pipeline for acoustic scattering in virtual audio environments, proposing a phase-locking measurement technique and Multi-Angle Scattering Analysis (MASA) for angular spatial accuracy.

Mobile Game Accessibility (peer-reviewed paper, co-author)

2024

Cardiff University · HCSE 2024, Springer LNCS Vol. 14793, pp. 255 to 263

Binaural soundscape frameworks and accessible audio-interaction guidelines for mobile games, published at the 10th IFIP HCSE Conference, Reykjavik, 2024.

06 EDUCATION

MSc Audio & Music Technology

2022 to 2023

University of York, UK

Dissertation in collaboration with Sony Interactive Entertainment, supervised by Prof Gavin Kearney and Dr Frank Stevens.

BEng Sound Engineering

2016 to 2021

Universidad San Buenaventura, Colombia

5-year integrated programme.

07 CERTIFICATIONS

Dante Levels 1 & 2

Trinnov Level 1

Lutron Lighting Control

Shure WWB6

Anthropic Claude 101 (course)