

Santiago Hoyos

AV Systems & Acoustic Engineer

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PROFILE

Audio-visual systems designer and acoustic engineer combining applied AV design with an acoustics research background. Currently designing and commissioning integrated audio for high-end residential projects (Wisdom Audio tier) at Perfect Integration, London. MSc in collaboration with Sony Interactive Entertainment, peer-reviewed publication, and a 5-year BEng in Sound Engineering. Certified in Dante (L1 & L2), Trinnov (L1), Lutron Lighting Control, and Shure WWB6.

WORK EXPERIENCE

Audio-Visual Systems Designer

Perfect Integration – London, UK

2024 – Ongoing

Design integrated audio systems for high-end residential environments — 10+ projects to date, 10+ rooms per project, with 18+ channel deployments and Wisdom Audio-tier components. Produce signal-flow schematics, equipment layouts, and coordination drawings; manage commissioning preparation and calibration workflows across distributed audio. Collaborate with architects and multidisciplinary teams to balance acoustic performance, usability, and architectural constraints.

Technical Audio Advisor (Sales)

Devialet at Harrods – London, UK

2024

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

Acoustic Consultant

GSA SAS – Medellín, Colombia

2021 – 2022

Delivered 20+ acoustic-modelling and environmental-noise assessment projects (20+ technical reports) supporting architectural design decisions. Produced CAD-based regulatory-compliance documentation; advised on material-selection strategies for commercial and residential environments.

Audio Systems & Production Engineer (Freelance)

Remote and mixed locations

2017 – Ongoing

Room-acoustic consultancy and sound engineering across commercial and residential environments — acoustic treatment recommendations, monitoring optimisation, and signal-chain design. Mixing and mastering across music, radio, and digital media.

SKILLS

- **AV Systems Design:** Signal flow schematics, equipment layouts, system coordination drawings, commissioning, calibration
- **Acoustic Measurement & Modelling:** Room acoustics, impulse-response capture, environmental noise assessment, regulatory-compliance reporting
- **Protocols & Platforms:** Dante (Levels 1 & 2), Trinnov (Level 1), Lutron Lighting Control, Shure Wireless Workbench 6, Shure Fast Track BLS
- **CAD & Documentation:** AutoCAD (3+ yrs), SketchUp (3+ yrs), Adobe Photoshop / Illustrator / InDesign (4+ yrs)
- **MATLAB (7+ yrs):** Acoustic simulation, signal processing, measurement analysis
- **DSP & Audio Production (7+ yrs):** Filter design, signal-chain design, mixing & mastering, room-tuning
- **Spatial Audio (3+ yrs):** Binaural processing, immersive audio, scattering analysis
- **Languages & tooling:** Python (4+ yrs), Swift (1+ yr) for internal tools

EDUCATION

MSc – Audio & Music Technology
University of York, York, UK

2022 – 2023

Dissertation: *Acoustic Scattering Measurement Techniques for Immersive Virtual Environments* — supervised by Prof Gavin Kearney & Dr Frank Stevens, in collaboration with Sony Interactive Entertainment.

BEng – Sound Engineering (5-year integrated programme)
Universidad San Buenaventura, Medellín, Colombia

2016 – 2021

RESEARCH

Mobile Game Accessibility (peer-reviewed)
Cardiff University – HCSE 2024, Springer LNCS

2024

Co-authored research on binaural soundscape frameworks and accessible audio-interaction guidelines for users with dual visual and dexterity impairments.

Acoustic Scattering for Virtual Applications
Sony Interactive Entertainment / University of York

2023

MATLAB-based simulation work proposing novel measurement methods (phase-locking, MASA) for spatial accuracy in immersive audio.

ACHIEVEMENTS & CERTIFICATIONS

Certifications

- Dante Protocol, Levels 1 & 2
- Trinnov Certification, Level 1
- Lutron Lighting Control
- Shure Wireless Workbench 6
- Shure Fast Track: BLS

Publication

Abdoulqadir, Loizides & Hoyos (2024). *Enhancing Mobile Game Accessibility: Guidelines for Users with Visual & Dexterity Dual Impairments*. HCSE 2024 – Springer LNCS Vol. 14793, pp. 255–263.

Language: English – C1 / Professional working proficiency (TOEFL iBT 92/120).

REFERENCES

Prof. Andy Hunt – University of York, Chair, Engineering Teaching Committee. Contact info available upon request.

Dr. Frank Stevens – University of York, Associate Lecturer. Contact info available upon request.