
SUMMARY

Audio engineer and DSP-focused developer pursuing a B.S. in Music Engineering Technology with a minor in Computer Engineering. Experienced in **building real-time audio processing tools, designing ML-driven audio systems, and developing creative DSP plugins**. Founder of an AI-powered audio startup and recipient of multiple AI and music innovation awards.

TECHNICAL SKILLS

Programming / DSP: MATLAB, C++, Python, JavaScript, Max/MSP, Unity

Audio Tools: Logic Pro, ProTools, Ableton, Reaper, IEM Plug-ins, Live Sound/Recording

Audio / ML Concepts: Real-time DSP, LTI Systems, Nonlinear Processing, Feature Extraction, Onset Detection, Tone Transfer Models, CNNs

Other: Git/GitHub, Windows/macOS/Unix, Music Theory, Unity Game Engine

AUDIO DSP PROJECTS

Custom Audio Plugins (MATLAB / VST Prototyping)

- Implemented real-time audio effects and modeled nonlinear processing & LTI filters
- Built cross-platform plugins, optimized MEX builds, and designed expressive parameter mappings

Spatial Audio Mapping System (In Progress)

- Maps incoming audio (pitch, articulation) to spatial positioning in real time
- Converts frequency-domain features to MIDI/control signals for live performance

Aligno – AI Audio Startup

- Built multitrack drum datasets to improve onset detection using convolutional neural networks
- Curated training data and evaluated outputs to optimize ML audio performance

WORK EXPERIENCE

CHAI – Producer & Audio Programmer

Aug 2024 – May 2025

- Composed, produced, and mixed AI-integrated songs; refined ML-generated audio via listening tests

FilmGate – Audio Head & Sound Instructor

May 2025 - Aug 2025

- Produced commercial audio; taught immersive audio, recording, foley, ADR, and sound design

Frost School of Music – Live Sound & Recording Engineer

Aug 2023 - Present

- Mixed live performances for clients including Emmet Cohen, Latin Grammy Foundation, Florida Panthers

Frost Museum of Science – Planetarium Sound Designer & Producer

Aug 2025 - Present

- Produced multi-channel audio for interactive exhibits (12.1 speaker configuration)

EDUCATION

University of Miami, Frost School of Music

- B.S. Music Engineering Technology, Minor in Computer Engineering (*Expected May 2027*)
- M.S. Music Engineering Technology (*Expected May 2028*)
- GPA: 3.980 / 4.0

AWARDS & LEADERSHIP

- Audio Engineering Society - President (2026-2027), Secretary (2025-2026), Member (2023-2025)
- Women in Audio Outreach (2025-Present)
- MusicReach Mentor – Middle school workshops on sound design and recording (2025-Present)
- **Awards:** USTAAR Venture Catalyst (2025-26), Frost AI Song Competition Winner (2025), Int'l AI Song Comp. 3rd Place (2025), SunFest Music Scholarship (2023)