

Nathan Sariowan

Acoustics and Software Engineer

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Acoustics and music-focused engineer merging extensive software development, design and leadership experience with a diverse background in audio engineering and production management. Rapidly adaptable, highly collaborative, thoughtfully creative, and passionate. Seeking software and UX roles in innovative, quick-moving audio technology projects.

Education

M.A. Music, Science and Technology, **Stanford University**, 2024-2025 (Graduating June)

B.S. Symbolic Systems, Human-Computer Interaction Concentration, **Stanford University**, 2020-2024

Award of Excellence, 2024

Skills

Proficient: MaxMSP, Swift, Python, Java, JavaScript, Node, React, HTML, CSS, Unix, Git, LaTeX. **Familiar:** C/C++, Qt

Software: Figma, Vectorworks, Photoshop/Illustrator/Premiere, Ableton, Logic Pro, Pro Tools, MainStage

Technology Work Experience

Acoustics Engineering Incubation Intern | **Apple**, Cupertino

(06/2024)-(09/2024)

- Led project redesigning and improving spatial audio head-tracking.
- Developed and designed prototypes testing 15+ design configurations using **MaxMSP**, **iOS (Swift)** and **VICON**.

Acoustics User Studies Intern | **Apple**, Cupertino

(06/2023)-(09/2023)

- Developed a new internal **Vision Pro**-based user study app using **Swift**, **MaxMSP** and **Python**.
- Designed and executed company-wide user study (n=20) for validating accuracy/usability of a new spatial audio tool.
- Analyzed and presented findings to the VP level, engineers in Vision Products Group, and the greater Acoustics org.

Technical Designer Incubation Intern | **Apple**, Cupertino

(06/2022)-(09/2022)

- Designed and developed **iOS** prototypes for new wayfinding and spatial-audio technologies using **Swift/ARKit**.
- Pitched prototypes to VP level and other departments, proving use cases and enabling continued development on several new proposed hardware features..

Researcher | **Center for Computer Research in Music and Acoustics (CCRMA)**, Stanford (06/2021)-(09/2021)

- Developed a new **C++** and **Qt GUI** for JackTrip software released to thousands of users.
- Organized weekly beta testing group meetings of ~10 high school students in the Bay Area, Texas and Korea.

Production/Project Work Experience

Program Director | **The Arbor, Stanford Office of Student Engagement**, Stanford

(09/2022)-(06/2024)

- Organized 100+ events a year, managing a 15 person crew, booking hundreds of musical acts, and managing tech equipment, production, finances and promotion with a \$50k yearly budget.
- Increased attendance by hundreds of students per week.

Assistant Technical Director | **Stanford Theatre and Performing Studies Department**

(09/2022)-(12/2023)

- Consulted, managed and maintained audiovisual technologies across 20+ departmental and student theater productions at all of Stanford's various theater venues.
- Sound designed and music directed 10+ shows with varying budgets up to \$100k.

Audio Engineer, Producer and Musician | **Freelance**, Bay Area

(09/2022)-(12/2023)

- Production manager and A1 for 100+ shows, thousands of attendees, budgets up to \$200k.
- Studio engineer, producer with 200,000+ streams across 20+ credited songs on streaming platforms.
- Bassist, guitarist and violinist regularly performing across the SF Bay Area and LA.

Projects

Spatial IEM — AR (**ARKit/Swift**) mixing app and spatialized in-ear monitor mixing system (**Python/RPI**) for musicians.

Phixer — Phicon-based AR (**OpenCV/WebAudio/JS**) audio mixing app. Real, physical objects control audio parameters.

Aurascope — Multi-media creativity logging app **React/Figma** design project. Best video award in HCI class.

Talking Piano — **JSX** App using FFT algorithm to render audio files on a real piano.

Virtual Trumpet — **WebAudio/Node** app, uses a video game controller and microphone to simulate a trumpet.

Heap Allocator — Systems final project, **C** heap allocator from scratch with implementations for malloc, realloc and free.