

ETHAN SOO

Software Engineer, Real-Time 3D and XR

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Seven years of software engineering in real-time 3D and XR. Shipped Symphoni on the Meta Quest Store at 72+ fps down to Quest 2, and Get Clowned on Meta Horizon Worlds. Won 1st place (Games) at the Meta Quest Presence Platform Hackathon. Wrote a C++ and Direct3D 11 engine from scratch.

EXPERIENCE

Sole Engineer, DropClip · Nova Wav · contract Apr 2026 – Present

Los Angeles, CA

- Built a Next.js MVP for a four-time Grammy-winning duo, turning camera footage into a music video in minutes, cut to lyrics and beats.
- Rewrote the app's render path on mp4box and WebCodecs, bringing iPhone incremental edits to about 0.4 seconds, verified by an on-device gate.

Solo Developer · WavSpace Jan 2026 – Present

- Architected WavSpace, a Unity engine for authoring music-driven visuals, on a Visual, Property and Source model where audio reactivity is a property source.

Co-Founder, Lead Engineer · [techToy Studio](#) Jul 2023 – Jan 2026

Los Angeles, CA

- Led end-to-end development of [Symphoni](#), a Unity VR rhythm title launched on the [Meta Quest Store](#) in March 2025, with a three-person team.
- Symphoni carried the [Meta Quest Store](#)'s top-rated badge and was featured exclusively in the store through its launch month.
- Optimized Symphoni to hold 72+ fps on five headsets down to Quest 2 and cut load time from over 30 to under 1.4 seconds.
- Profiled Symphoni with the Unity Profiler, Memory Profiler, Frame Debugger and RenderDoc, cutting GC allocations, pooling objects, reducing draw calls and shortening load times.
- Architected [Symphoni Composer](#)'s command- and event-driven level [editor](#), with a DSP-timed timeline, synced 3D viewport and inspector, dual undo stacks, and packaged level files.
- Released Symphoni Composer to players, who built 50+ custom levels with it in the first two months after its launch.
- Joined the Meta Horizon Creator Program (MHCP) in 2024 and shipped Get Clowned on Meta Horizon Worlds in November 2025.
- Closed \$250k in non-dilutive funding from Meta and \$50k from ByteDance with the studio's co-founder.

Research Software Engineer · USC Keck School of Medicine · contract Aug 2023 – May 2024

Los Angeles, CA

- Built VR driving-simulation features on the CARLA simulator using Unreal Engine's C++ and Python APIs, reproducing real-world driving scenarios against simulated sensor data.

Full-Stack Software Engineer · Santa Fe VIP Tours · contract Mar 2021 – Dec 2023

Remote

- Core developer of a cross-platform iOS and Android app in Unity that delivered thousands of guided AR tours.

Software Engineer & Project Manager · AR Tennis · contract Jun 2019 – Jan 2022

Remote

- Engineered a virtual target training system delivered through the client to the US national tennis team, integrating Unity with HoloLens, Magic Leap, and Nreal.

Software Engineer · Independent · contract

2019 – Present

Remote

- Core contributor on 50+ AR/VR client projects, primarily in C++ and C#, shipping features and end-to-end products through to delivery.

PROJECTS

Lead Developer · SWANS

Dec 2025 – Present

- Building [SWANS](#), a Meta Ray-Ban assistant for catering waitstaff; its prototype was runner-up for the AI with Camera Access prize at SensAI Hack 2025.

Solo Developer · Quark

Nov 2025 – Jan 2026

- Built [Quark](#) for the Meta Horizon Start Developer Competition, a Quest 3 app turning the player's surroundings into music with OpenAI vision and Suno.

Custom 3D Game Engine

Jan 2024 – May 2024

- Architected the engine solo, from scratch in C++ and Direct3D 11, with a multi-threaded job system and a multi-target post-processing pipeline.
- Wrote the engine's HLSL shaders and post-processing, including Phong lighting, normal mapping, skinned mesh, bloom with Gaussian blur, and dynamic point-light allocation.

Meta Quest Presence Platform Hackathon, 1st Place (Games) · Meta

Apr 2024

- Built a colocated MR hide-and-seek game in 72 hours, using Meta's Depth API to limit each player's passthrough view to a few feet.

Lead Engineer, Neon City · Meta Rift Store title

Jun 2022 – May 2023

- Owned interaction design and engineering, building the hand-gesture interactions and working with UX/UI designers, engineers and game designers to make them feel intuitive.
- Led five engineers, running their code and design reviews.

Custom Ray Tracer

Apr 2022

- Built it in C++ with OpenGL, running on CPU and GPU in GLSL shaders, with recursive reflection, refraction, shadows and 4x supersampling.

TECHNICAL SKILLS

Languages: C++, C#, Python, HLSL, GLSL, Java, C, Swift, Solidity, Scala, SQL

Engines & Frameworks: Unity, Unreal Engine, Direct3D 11, OpenXR, Meta XR SDK, Horizon Worlds, HoloLens, Magic Leap, CARLA, OpenAI API, Next.js, OpenGL, MRTK, AR Foundation, Three.js, React, OpenCV, PyTorch, Photon

Tools: Claude Code, RenderDoc, Unity Profiler, Xcode, Android Studio, Blender, Maya, Git, Figma

EDUCATION

University of Southern California · B.S. Computer Science (Games)

May 2024 · GPA 3.8

Los Angeles, CA

San Jose State University · Computer Science, senior standing, transferred to USC

Dec 2021

San Jose, CA