

Armand Sumo

Software Engineer | Extending human perception and agency with AI and AR
Lyon, France | armandsumo@gmail.com | armandsumo.com

SUMMARY

Software Engineer with 3 years of experience building AR, 3D, and AI-driven software across startups and industrial R&D labs, from HoloLens to Snap Spectacles. Comfortable owning a feature end to end, from procedural geometry and GLSL shaders on the GPU up to React front ends and Cloudflare Workers backends.

SKILLS

Languages: TypeScript, Python, GLSL

Platforms & Infra: Cloudflare Workers, Supabase, Vercel, React, Three.js, Node.js

AI & Agents: Claude API, Gemini API, Model Context Protocol, embeddings, agent orchestration

AR & Hardware: Snap Spectacles, Lens Studio, Raspberry Pi, e-ink displays, TFT touch interfaces

Foundations: Real-time 3D, computational geometry, shader programming, GPU optimization

PROFESSIONAL EXPERIENCE

Curvilinear | Founder & Software Engineer, AR & Agentic AI

October 2025 – Present | Lyon, France

- Built Eywa, an open-source platform for coordinating AI agents in real time, with a React 19 and Three.js front end backed by Cloudflare Workers and Supabase for live state across clients
- Architected an MCP server exposing 45 tools across 12 categories so agents share context and route work through a single uniform interface, with a zero-auth CLI for local use
- Shipped 3D visualization to Snap Spectacles AR glasses, Raspberry Pi e-ink, and TFT touch displays, all driven by procedural geometry and custom GLSL shaders for GPU rendering

IMAIOS | Front-End Developer (2D & 3D)

March 2025 – September 2025 | Montpellier, France

- Shipped a 3D anatomical model viewer on the web platform so medical learners can browse high-quality 3D content directly in the browser, with asset loading and rendering tuned for performance
- Built interactive annotation tools for the DICOM Viewer using Cornerstone.js and optimized SVG rendering
- Developed features for the e-anatomy web application using Vue 3, TypeScript, Godot, and AWS

Wanadev | 3D Front-End Developer

February 2024 – August 2024 | Lyon, France

- Built 2D and 3D product configurators in Three.js and Vue.js so customers could visualize and customize furniture in real time through the browser
- Developed a custom 2D industrial drawing tool in Paper.js for high-precision CNC milling machine interfaces

Digital Product School by UnternehmerTUM | Front-End Developer Intern

January 2023 – June 2023 | Munich, Germany

- Developed a web application for SAP that helps production engineers plan their daily tasks
- Built a location-based web application using React, Google Places API, Leaflet, and Spring

ArcelorMittal Digital Lab | AR/VR Developer Intern

January 2022 – June 2022 | Metz, France

- Developed a cross-platform video live-streaming application for HoloLens 2 using Unity, MRTK, .NET, and Azure

PROJECTS

Printed Circuit Boards, Open-Source AR Electronics Tools | github.com/a-sumo/printed-circuit-boards

- Built a Snap Spectacles toolkit that turns KiCad PCB, schematic, and symbol library files into interactive 3D scenes you can place in your room and inspect from any angle
- Wrote a fully procedural PCB renderer that draws traces, vias, pads, and silkscreen on the GPU from parsed board data, so any imported board renders without baked textures
- Implemented an autorouter and wired KiCad's open symbol library in as a submodule so user-imported boards render with accurate component footprints

Eywa, Open-Source Agentic Stewardship Platform | eywa-ai.dev

- Real-time dashboard built in React 19 and Three.js that shows agent topology in 3D and updates curvature-based alignment metrics live through Supabase subscriptions
- Cloudflare Workers MCP server with 45 tools across 12 categories, plus a zero-auth CLI, a Discord bot with 15 commands, and a VS Code extension with an agent sidebar
- Multi-surface rendering across Snap Spectacles in Lens Studio, Raspberry Pi e-ink with 7-color Waveshare, and TFT touch displays so agents can be monitored ambiently from any of those surfaces

Specs Samples, Real-Time 3D Experiences for AR Glasses | github.com/a-sumo/specs-samples

- Vector field visualizer that integrates magnetic dipole fields on the GPU and renders the resulting field lines as procedural tube meshes deformed along their TNB frame
- 3D color space explorer and color sampling tool, combining procedural geometry, shader-based color mapping, and generative AI running on wearable AR hardware

Linear Algebra v1, Lens for Spectacles | [Open the Lens](#)

- Spatial Lens that teaches matrices through their rows and columns and shows how operations like multiplication, elimination, rotations, and eigenvalue decomposition act on them

EDUCATION

IMT Nord Europe | Engineering Degree (Grande École)

Equivalent to Master's in Computer Science | Graduated May 2023

Lycée Franklin Roosevelt | Classes Préparatoires

Mathematics & Physics | Completed May 2019