

John Shaughnessy

Software engineer with broad experience in multiplayer games, virtual reality, backend/cloud infra, web apps, dev tools, and gen AI

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EXPERIENCE

Founder & Software Engineer

July 2025 - Present

Acorn Talk

TypeScript · React · Electron · Node.js · Express · Python · OCR · NLP · TTS · Auth0 · Stripe · Resend · FFmpeg · Prometheus · Grafana · Docker Compose · macOS · Windows · Linux · Steam Deck

- Founded Acorn Talk to help learners bridge the gap to native Japanese material. Built **Tango**, a web-based vocabulary and kanji learning system, and **Lens**, a companion desktop app for macOS, Windows, Linux (X11, Wayland), and Steam Deck.
- Built APIs to transform subtitles, lyrics, manga, and screenshots into personalized study materials, including OCR, NLP, dictionary disambiguation, kanji decomposition, sentence segmentation, translation, native-speaker audio recordings, TTS, and spaced repetition.
- Built authentication, billing, email, audio recording/processing, and service monitoring dashboards using Auth0, Stripe, Resend, FFmpeg, Prometheus, Grafana, and Docker Compose.

Software Engineer

November 2024 - June 2025

Dopple Works

Android · TypeScript · Three.js · Unity · AI/ML · Embeddings · Object detection · Speech · Backend APIs

- Built software for a pre-release educational hardware device for children across Android, web APIs, backend AI services, game systems, and UX/product design.
- Developed offline-first AI on constrained Android hardware, including local image classification, object detection, depth processing, image/text embeddings, and speech workflows.
- Built Montessori-inspired learning systems with species/object scanning, collectible cards, quests, and activities designed to foster curiosity about the world outside of the screen.

Senior Staff Software Engineer

September 2023 - November 2024

Mozilla Corporation · Builders

New York, NY

TypeScript · Python · React · FastAPI · Browser extensions · llamafile · Local LLMs · RAG · ChromaDB · Vector search

- Built experimental AI prototypes for Mozilla including **Memory Cache**, a browser-extension and local backend system for saved webpages, document ingestion, vector retrieval, local model orchestration, RAG, standalone desktop packaging, and local LLM workflows with Python, TypeScript, FastAPI, ChromaDB, React, llamafile, and PylInstaller.
- Served as technical lead for Mozilla Builders, evaluating hundreds of open-source AI submissions and interviewing candidate projects for grant funding and accelerator support.

Senior Engineering Manager (2021-2023), Staff Software Engineer (2017-2021)

September 2017 - August 2023

Mozilla Corporation · Hubs

Mountain View, CA

TypeScript · JavaScript · React · Elixir · Phoenix · WebRTC · WebGL · WebXR · Postgres · AWS · GCP · Engineering management

- Led engineering for an open-source WebXR/social 3D platform across real-time networking, WebRTC voice and video, WebGL/WebXR graphics, avatars, persistence, backend services, Hubs Cloud/self-hosting, and release workflows.
- Wrote Hubs' multiplayer networking and entity-component game architecture, covering state replication, authority/entity ownership, presence, permissions, physics sync, media sync, and plugin-oriented extensibility.
- Managed and mentored a cross-functional team of 12 engineers and artists through hiring, onboarding, 1:1s, pair programming, goal setting, and release planning while continuing to write production code.

Software Engineer

January 2015 - August 2017

AltspaceVR

Redwood City, CA

Unity3D · C# · JavaScript · Motion capture · VR

- Built Unity3D/C# avatar and motion-capture systems for a social VR platform, unifying skeletal input from Leap Motion, Kinect, and Perception Neuron.
- Created in-game screenshot sharing, personal-space safety features, artist tools, network-synced animations, and synchronized Netflix, YouTube, and Twitch video experiences.

EDUCATION

Claremont McKenna College

2010 - 2014

BA in Mathematics; Minor in Computer Science

Best Senior Thesis in Mathematics: [Finding Zeros of Rational Quadratic Forms](#) [archive]

Men's Varsity Soccer

上智大学 · Sophia University

Spring 2012

Study Abroad Program

Tokyo, Japan