

# Thomas O'Neill

Creative technologist turned AI engineer

Building agentically driven tools and products

10 years of full-stack and infrastructure underneath

## Recent Projects

**crush** [github.com/oneilltomhq/crush](https://github.com/oneilltomhq/crush)

*February 2026*

Chrome-native AI Agent Runtime with WebGPU Terminal

Ported Ghostty terminal emulator to WASM, enabling a full POSIX-compliant shell environment directly inside the browser Side Panel

Engineered a WebGPU/Three.js renderer using SDF (Signed Distance Field) text, capable of rendering 1920-cell grids at 60fps for agent diagnostics

Implemented LLM-driven command loop where models interact with the browser via a persistent, virtualized shell environment

**semantic-atlas** [github.com/oneilltomhq/semantic-atlas](https://github.com/oneilltomhq/semantic-atlas)

*February 2026*

3D explorer for AI conversation history — embeddings, clustering, interactive WebGPU visualization.

Python NLP pipeline — GDPR exports → Nomic embeddings → UMAP → HDBSCAN clusters

WebGPU/Three.js 3D point cloud with topic filtering and navigation

**voice-to-hand** [github.com/oneilltomhq/voice-to-hand](https://github.com/oneilltomhq/voice-to-hand)

*November 2025 – December 2025*

Voice-driven poker hand recorder — live speech to structured hand history with visual replayer.

Streaming speech-to-text (Deepgram) → LLM parsing (Grog) → structured game state Vitest evaluation against golden dataset of hands

## Work Experience

### Full Stack 3D Web Developer @ Open Systems Lab

*November 2021 – March 2025*

BuildX — 3D web CAD for modular housing; parametric modeling, collision detection, IFC export

Geospatial site-selection layer on Mapbox GL, extracted into shared library

Atlas of Ownership — Next.js / Mapbox GL 3D globe for land ownership data

### Co-Founder & Lead Developer @ Bearjam

*January 2020 – November 2021*

Dream Builder — 2D vision-boarding app in 3D space with React Three Fiber

Bear Bookshop — e-commerce site, Stripe/iZettle payments and POS

### Systems Engineer & Developer @ Claranet

*November 2015 – April 2017*

OpenStack Kolla contributor (Neutron BGP routing); infra automation with Docker, K8s, Ansible

## Contact

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## Skills

### AI

Agentic Workflows & Tool-use · Planning & Execution Loops · RAG & Vector Search · Embedding Pipelines · Topic Modeling & Clustering · Streaming Speech-to-Text · Structured Extraction · Python

### Web

TypeScript · React · Next.js · Three.js · WebGPU · Mapbox GL · Chrome Extensions · Manifest V3 · CDP

### Infrastructure

Docker · Kubernetes · Ansible · Golang

### Communication

Circling · Authentic Relating · Group facilitation · Community organizing