J Wylie Cullick

Senior Software Engineer — Platform, Cloud Infrastructure & Full-Stack

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Summary

Software engineer with 14 years of experience. For the last four years, owner of one company's entire platform, and its sole engineer for three: infrastructure, backend, frontend and devops. Rebuilt and solely own its AWS infrastructure, rescued its production order platform, and built the clean-sheet successor in Rust. Earlier work across startups, enterprise IT and R&D.

Skills

- **Cloud & ops:** AWS (EC2, S3, Cognito, Lambda, Bedrock, IAM Identity Center), blue-green deployment, Docker, Kubernetes, Linux, Nginx
- **Backend:** Rust (Axum, hyper, Actix), Python (Django, Flask), Node.js, REST APIs, WebSockets
- **Frontend:** Leptos, React, React Native, TypeScript, WebAssembly, SVG
- **Data:** PostgreSQL, Redis, Firebase
- **Real-time & GPU:** WebRTC, WebGPU, Vulkan, WebGL
- **AI-assisted development:** Claude Code on AWS Bedrock
- **ML:** TensorFlow, Pandas, NumPy

Experience

Sole Engineer — Medngine / Regenative Labs *Oct 2022 – Present · Remote*

- **Role:** sole engineer Sept 2023 – Oct 2026 (infrastructure, backend, frontend, devops). Designed and wrote all four systems alone. Second engineer joined Oct 2026.
- **Marten (AWS infrastructure):** inherited a failing Elastic Beanstalk deployment and a failed outsourced rebuild. Designed and built the replacement, spring 2023. Sole owner for four years. Runs every environment, devops tooling to production.
- **Marmot (order and commission platform):** took over an unmaintainable Python Flask app (Maestro). Re-engineered it winter 2023–24, bringing in the ancillary Django stack. Stable by Mar–Apr 2024. Then shipped planned features earlier developers couldn't deliver. In production, carrying about $2.4M a year in commission volume.
- **Magpie (async service):** Rust on hyper. Handles Marmot's asynchronous tasks.
- **Haggister (clean-sheet successor):** sales platform in Rust, Leptos, Axum and WebAssembly, extended with clinical tools: simulation, studies and scenario builds. WebGPU simulation. WebRTC and WebSocket comms. Deployed blue-green; production cutover scheduled Dec 4, 2026.
- **Simulation:** WebGPU simulation built. Parallel discrete-event simulation in development since autumn 2026, with WebRTC between nodes; first browser tests due December 2026.
- **AI-assisted development:** Haggister built with Claude Code, later on client-provisioned AWS Bedrock.

Simulation Engineer — Terebinth *Jan 2017 – Present · Freelance*

- Private simulation engine in Rust, single-threaded so far: the universe and its laws defined from the domain science in discrete form (Lagrange, Euler, Maxwell; fields and entities). Targets: flight simulation and game-style simulation. A parallel version across a home cluster is planned.
- Rendering on Vulkan (Winit, SPIR-V, GLSL), including a native point-cloud renderer. Works against the C and C++ Vulkan API.
- Shares its simulation approach with Haggister: Vulkan on the desktop, WebAssembly and WebGPU in the browser.
- Runs terebinth.is on a self-managed Akamai (Linode) server.

Freelance contracts *Jul 2022 – Oct 2022 · Remote*

- Containerized bot fleet for distributed clients: Node.js, Kubernetes API, Docker, WebSockets.
- glTF file viewer: Rust, WebAssembly, WebGL2, GLSL.
- Networked game: Rust, WebAssembly, WebGL2, Actix, WebSockets.

Software Engineer — Edvo *Dec 2021 – Feb 2022 · Contract · Texas*

- Startup building a collaborative graphical editor, similar to Miro.
- SVG-based GUI in TypeScript and React/Preact, in a monorepo.
- Multithreading and optimization in Rust (wasm-bindgen, web-sys). Firebase backend.

Senior Software Engineer — Aetna, a CVS Health Company *Sep 2020 – Jan 2021 · Contract · Plano, TX*

- Managed deployments and systems administration for a corporate web application on Docker, Kubernetes and Linux VMs.
- Operated the Node.js, CDN and Redis components in production.

Senior Software Engineer — Solera, Inc. *Feb 2019 – Aug 2019 · Full-time · Dallas–Fort Worth*

- Designed and built a personnel-tracking system for facilities management using Bluetooth, Raspberry Pi, WebSockets and React Native (Android, iOS).
- Built a machine-learning system on dedicated GPUs (TensorFlow, Pandas, NumPy) that analyzed vehicle engine audio for diagnostics.

Software Engineer — SiriusXM (via Relus Technologies) *Jul 2018 – Dec 2018 · Irving, TX*

- Connected Vehicle division: large-scale, safety-critical network joining embedded and web applications.
- REST APIs with Node.js, Redis and Swagger.
- Helped build project validation by network simulation.

Software Engineer — Vinder App *Feb 2018 – May 2018 · Contract · Austin, TX*

- Founding engineer: designed and built the original system.
- Real-time, horizontally scalable backend: Node.js, AWS (EC2, S3, Cognito), WebSockets, Redis.
- First Android app in React Native, with native optimizations in Java and Kotlin.

Lead Developer — Virtual Fantasy League *Jul 2017 – Jan 2018 · Freelance · Remote*

- Designed and built a React app for a fantasy-football game, matched to wireframes and responsive across phones and tablets.
- Implemented complex graphical components with programmatic SVG.

Associate Software Engineer — Vida Systems *Jan 2015 – Jun 2015 · Freelance · Remote*

- With an international remote team, built an interactive 3D anatomy app for medical students: WebGL model rendering with a React control interface (CoffeeScript).

Earlier and short-term roles

- **The Container Store** — Senior Software Engineer, Jan–Feb 2019, Irving, TX.
- **ChameleonX** — Software Engineer, Feb–Jun 2017, Tel Aviv (before its acquisition by Akamai). Sole design and build of the core component of a proxy security layer for publishers: Node.js, Redis, Lua, multithreading.
- **Woobi** — Software Developer, Dec 2016 – Feb 2017, Tel Aviv. AWS Lambda microservices for large streaming data sets.
- **Sergata** — Software Developer, Apr–Aug 2016. React Native Android apps for clients, with Java and Kotlin.
- **GlowLit** — Developer, 2016. React and SVG business-intelligence app for the raw-materials market.
- **2012–2014:** Bartr (sole owner of backend and web app: Node.js, WebSockets, Redis, AngularJS), Cognitio (Node.js microservices), Kef International (Node.js and AngularJS business software for a logistics company), freelance Python and PHP work.

Education

- UMass Boston, 2007–2009: mathematics BSc program, most coursework completed, no degree. Multivariable calculus, linear algebra, complex analysis, probability and statistics, abstract algebra, topological manifolds.
- George Mason University, 2003–2004.
- Santa Monica College, 1999–2000.

References available on request.