

Aaron Lilla

Senior Front-End Engineer, Full-Stack & AI-Assisted Development

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Authorized to work in the U.S. (no sponsorship required) · Native English speaker

SUMMARY

Senior front-end engineer with 13+ years building production web applications — 8+ of them deep in React, TypeScript, and Node.js. Six years as Senior Front-End Engineer on TableCaptain (PokerAtlas), architecting the real-time WebSocket layer behind 450+ concurrent displays in 30+ casino poker rooms. Concurrent senior front-end / AI-LLM contract work training and evaluating LLMs (Mercor Intelligence, DataAnnotation), a shipped Claude-API Discord bot, and an AI-agent build pipeline (Claude Code, MCP) as founder of indie studio Dockyard. Seeking a full-time senior or staff front-end / full-stack role centered on production ownership and AI-assisted engineering.

SKILLS

Frontend: React, Redux, Next.js, TypeScript, Tailwind CSS, Vite, Three.js, Design Systems, Responsive UI, Accessibility (WCAG), Figma to React

Backend & Real-time: Node.js, Express, REST APIs, WebSockets, Supabase, PostgreSQL, SQLite, Electron, IPC, Electron Preload Scripts, Electron Auto-Update, Auth & Sessions, OAuth

AI & LLM Development: LLM (Large Language Model) Training & Evaluation, Claude API, Claude Code (Agentic CLI), MCP (Model Context Protocol), Prompt Engineering, AI Code Review & Defect Detection, RLHF (Reinforcement Learning from Human Feedback) / Data Annotation, Multi-agent / Agentic Pipelines

Languages: JavaScript (ES2024), C# (.NET), HTML5, CSS3, SQL

Architecture & Practice: System Design, Scalable Architecture, Deterministic Simulation, Code Review, Mentoring, Agile / Scrum

Testing & DevOps: Vitest, Jest, Playwright, CI/CD, Visual Regression, Performance Profiling, Git

EXPERIENCE

Senior Front-End Engineer

2019 - 2025

PokerAtlas

Las Vegas, NV (Hybrid)

Led front-end development of TableCaptain, a React and Electron poker room management platform adopted in 30+ rooms across the U.S. and Asia. Video walkthroughs of the Floor Editor, Table Manager, Waitlist, and in-venue TV display at aaronlilla.github.io.

- Architected the real-time WebSocket sync layer - 450+ concurrent displays (15+ per venue across 30+ venues) with sub-second latency - and scaled TableCaptain V2 to the #1 poker room management system by adoption in 2024 (per company assessment).
- Solo-designed and shipped the TableCaptain OTR Kiosk, a self-service camera-QR check-in app (React 19, real-time WebSocket) deployed on-premises at several large Las Vegas casino poker rooms including the Venetian, through 57 commits and 15+ versioned releases backed by a ~300-test automated suite.
- Engineered core features end-to-end (floor editor, table manager, waitlist, employee manager, in-venue display HUD with optimistic UI) integrated with a .NET backend over WebSockets.
- Automated the Electron auto-update and CI/CD pipeline (bi-weekly releases, sub-10-minute hotfixes, zero major downtime across six years) and led the TypeScript and Redux migration, mentoring engineers and translating Figma mockups into reusable design-system components.

Technologies: React, Redux, Electron, WebSockets, .NET (integration), Webpack, Vite, Vitest, CI/CD, Figma

Founder and Lead Engineer

2022 - Present

Dockyard (dockyard.studio)

Remote

Indie game studio: shipped Spire of Ash (a commercial roguelite ARPG) end-to-end on Steam in 2022-2024, and building Nolve (a buildcraft ARPG, in development since 2025) on a deterministic C#/.NET engine with an AI-agent development pipeline.

- Nolve (2025-present): built a TypeScript + React design studio as the single source of truth - a deterministic combat simulator with content authoring for 100 characters, 500 skills, and 2,000+ items - with a Monte Carlo parity harness holding the C#/.NET engine within 0.5% of the TypeScript reference across 1,000 seeded runs, driven by a multi-agent Claude Code build pipeline (combat runtime, balance validator, data exporter, mode implementor, cross-mode validator) with an MCP-driven dashboard.
- Spire of Ash (2022-2024): self-published a commercial roguelite ARPG end-to-end on Steam (~74,000 lines of TypeScript, 600+ tests) across 20+ releases (Steamworks, electron-builder, staged auto-update, Sentry, Chinese

localization), with a Three.js/Pixi.js 3D client, a Supabase cloud backend with real-time leaderboards, and procedural systems (a 442-affix generator, 988 collectible cards) gated by Monte Carlo balance audits.

Technologies: TypeScript, React, Node.js, C#, .NET, Godot, Electron, Three.js, Pixi.js, Redux, Supabase, Steamworks, MCP, Claude Code, Vite, Vitest, Playwright

Senior Front-End Engineer & AI/LLM Developer (Contract)

2024 - Present

Mercor Intelligence & DataAnnotation

Remote

Concurrent senior front-end and AI/LLM development contract work with two vetted-expert AI-training marketplaces that route engineers into RLHF pipelines for frontier AI labs (Mercor's clients include OpenAI and Anthropic) - building production React applications from LLM-processed prompts, training models to flag UX and code defects, and evaluating AI-generated front-end code for correctness and production readiness.

- Mercor Intelligence (Mar-Nov 2025, 8-month contract): built production-quality React applications from LLM-processed prompts as a Senior Front-End Engineer, structuring code as canonical teaching examples so models could learn and replicate optimal component architecture, and trained models to automatically flag critical UX defects.
- DataAnnotation (2024-present): serve as a senior front-end / AI-LLM developer on its software-engineering review track, building and evaluating React and Node code for correctness and production-readiness (logic errors, race conditions, inefficient implementations) and producing structured feedback used in RLHF model fine-tuning.

Technologies: React, TypeScript, Node.js, LLM Training & Evaluation, RLHF, Prompt Engineering

Frontend Developer

2017 - 2019

USCRE Online

Las Vegas, NV (Hybrid)

Built a single-page React app delivering real-time commercial real estate data for 5,000+ properties.

- Cut quote retrieval time by 50% via Redux-driven caching, request deduplication, and search-path query optimization.
- Shipped a 20-component reusable UI library (~40% fewer front-end bugs in six months) and drove load time under 1.2s into green Core Web Vitals.

Technologies: React, Redux, JavaScript, HTML5, CSS3

Operations Manager - Extraction & Compliance Systems

2014 - 2016

Evergreen Organix

Nevada

Operations Manager for a licensed cannabis processing facility (2014-2016), overseeing CO2 extraction operations and seed-to-sale compliance systems between web development roles.

- Administered the Metrc seed-to-sale compliance system (plant tagging, inventory tracking, packaging workflows) to meet state regulatory requirements.
- Built and tuned CO2 critical extraction processes and packaging-line SOPs, supervising staff and troubleshooting production and compliance-software issues under regulatory deadlines.

Technologies: Metrc, Systems Administration, Regulatory Compliance, Operations Management

Web Developer & Graphic Designer

2012 - 2013

IMPACT International Marketing

Lake Havasu City, AZ

First professional web development and design role, building marketing websites and graphic design assets for local and regional clients.

- Designed and built marketing websites and landing pages (HTML, CSS, JavaScript) and produced print and digital graphic design assets - branding, ads, marketing collateral - for regional clients.

Technologies: HTML, CSS, JavaScript, Graphic Design, Adobe Creative Suite

PROJECTS

Discord AI Chatbot

Node.js · discord.js · Claude API · Streaming LLM

Discord bot that streams LLM responses token-by-token in real time via the Claude API (OpenAI-configurable), with per-channel system prompts and conversation memory. github.com/aaronlilla/discord-ai-chatbot

Clippa

Electron · React · MCP · ffmpeg · SQLite

Local-first Electron app that finds highlight moments in long-form video for clip export via a multi-stage pipeline (yt-dlp ingest, audio/scene-cut fusion) on a SQLite job queue with crash recovery, scored by a precision/recall/nDCG eval harness. Exposes a dual-transport MCP server (~25 tools) for external agents to drive the whole workflow.

EDUCATION

College of Southern Nevada - Organic Chemistry coursework, Las Vegas, NV