

OREN GOLDBERG

AI Engineer & Engineering Lead

South Orange, NJ | ogoldberg@gmail.com | 347-829-6736 | linkedin.com/in/ogoldberg | orengoldberg.com
Public Interest Technology Fellow, Media Democracy Fund
Open to full-time or contract engagements

SUMMARY

Software engineer with 15+ years shipping production software, currently Director of Engineering at The Workers Lab (WorkIt Labs). Built and lead a production AI platform spanning multi-tenant RAG and document intelligence, multi-provider LLM abstraction, hybrid pgvector + keyword search, evaluation and caching instrumentation, and AI assistants used by paying partners. Comfortable across AI/ML systems, agent and browser automation, web and mobile, and the open-source AI stack — coding agents and AI-assisted development are part of my core loop, paired with hands-on architecture, evaluation, and production responsibility for what ships.

SELECTED AI SYSTEMS & PROTOTYPES

- **Chronos** (chronosapp.org · github.com/ogoldberg/Chronos) — Open-source infinite-zoomable timeline of everything, from the Big Bang to today: Wikidata SPARQL event discovery, force-directed knowledge-graph visualization, and zero-trust BYOK AI where keys live in the browser and requests go directly to Anthropic / OpenAI / Gemini / local Ollama with no server in the AI path.
- **WorkIt AI Assistant Platform** — Production multi-tenant RAG and document intelligence: OCR ingestion, semantic chunking, hybrid pgvector and keyword search, citations, streaming chat, LLM provider abstraction across OpenAI, Anthropic, Gemini, and Mistral, plus evaluation and caching. Shipped to paying partners by a small in-house team.
- **Exit (exitapp.org)** — Cross-protocol open-social client and infrastructure R&D platform: Flutter app with abstraction packages for AT Protocol/Bluesky, Matrix, Nostr, Solid, and ActivityPub; MLS/OpenMLS encrypted messaging; Phoenix delivery service; Akkoma ActivityPub deployment; Matrix homeserver for bridges and VoIP.
- **Unbrowser.ai** — Web browsing infrastructure for AI agents: learns from agent requests, discovers underlying APIs behind web pages, and builds reusable procedural skills. Cached requests return in 50-200 ms versus 2-5 s cold.
- **MoveAhead.ai** — AI-powered relocation prototype: document intelligence/OCR, personalized knowledge graph, RAG with semantic chunking and pgvector, AI-controlled adaptive dashboard, and 90+ generative UI components.

EXPERIENCE

Director of Engineering — The Workers Lab (WorkIt Labs) December 2019 - Present

First in-house engineering hire and hands-on technology lead for a public-interest technology organization serving partners across nonprofits, policy, advocacy, and field-operations teams.

- Architected production document intelligence and RAG platform: Mistral OCR ingestion, semantic chunking, pgvector and Neo4j vector stores, hybrid BM25 + vector search, citation flows, streaming chat, multi-provider LLM abstraction, and evaluation/caching instrumentation.
- Built multi-tenant AI assistant infrastructure spanning partners, projects, and namespaces with RBAC, branding/configuration, prompt management, canonical responses, analytics, feedback, usage tracking, admin workflows, and deployment safety checks.
- Use coding agents, MCP servers, browser automation, and custom internal tooling daily to ship prototypes, demos, and partner-facing integrations quickly across TypeScript, Python, and Flutter, with hands-on responsibility for architecture, evaluation, and production correctness.

- Translate strategy, policy, and research concepts into clickable artifacts for technical and non-technical audiences: AI assistants, member portals, public data browsers, field-operations maps, job platforms, and prototypes that partners can immediately test and react to.
- Built Exit as a separate open-protocol R&D platform: unified UX over Bluesky/ATProto, ActivityPub, Matrix, Nostr identity, Solid data portability, MLS-encrypted private messaging, and protocol-specific packages behind common interfaces.
- Led development of the UFCW 3000 Strategy Map, a field-operations platform for 746 Washington worksites with Mapbox / PostGIS visualization, organizer and team hierarchy, assignment workflows, contact tracking, goal tracking, predictions, and AI-assisted analysis.
- Built public-interest data tools including QNMU's public hospital map and reporting app and a Department of Labor enforcement archive system using Python, FastAPI, React/Vite, S3-compatible storage, parallel scraping, and searchable archive browsing.

VP of Technology / Lead Engineer — Give Lively November 2016 - November 2019

- Transformed an underused gift app into a widely adopted white-label fundraising platform for nonprofits; the platform has since processed over \$1B in donations.
- Hands-on lead engineer through a major product pivot, building campaign pages, peer-to-peer fundraising, text-to-donate, gift registry products, and core donation flows.
- Collaborated daily with founders and leadership on product strategy, implementation tradeoffs, hiring, roadmap, and organizational direction.

Lead Instructor & Product Manager — TurnToTech February 2014 - November 2016

- Mentored 100+ developers with a near-100% placement rate; alumni now at Apple, Amazon, Meta, Uber, Twitter, IBM, Snap, ThoughtWorks, Viacom, SoundCloud, and NYTimes.
- Built and taught full-time, online, and part-time engineering curricula, explaining complex technical concepts clearly to builders at different experience levels.
- Worked closely with founders on business decisions and led product development teams on the incubator side of the business.

Earlier Roles 2007 - 2014

- Job Center Coordinator and Organizer at UNITE HERE Local 355 in Miami: ran a job center serving 700 job seekers in 2.5 months at a 70% placement rate, and supported workplace organizing campaigns at Miami casinos.
- Founded Red Cloud Creations (farm-to-wholesale software, music venue booking app); built web apps and physical installations at Sub Rosa for clients including TED and SXSWi; built and taught a CS curriculum for at-risk youth at Vincent Gray Academy.

SKILLS

AI / ML Engineering: RAG architecture, document intelligence/OCR, multi-tenant AI infrastructure, pgvector, hybrid search, semantic reranking and chunking, evaluation and caching, LLM provider abstraction across OpenAI / Anthropic / Gemini / Mistral / Voyage AI, coding agents, MCP, browser automation, LangChain, Wikidata SPARQL, open social protocols (AT Protocol, ActivityPub, Matrix, Nostr, Solid, MLS).

Languages & Frameworks: TypeScript, JavaScript, Python, Ruby, Dart, Swift, Objective-C, SQL, PHP; Next.js, React, Node.js, Express, FastAPI, Ruby on Rails, Flutter, NativeScript, Laravel, GraphQL, Apollo.

Data & Infra: PostgreSQL, Prisma, pgvector, PostGIS, Neo4j, MongoDB, MySQL, Redis, Firebase, Salesforce, DigitalOcean, Vercel, Railway, Heroku, CI/CD.

EDUCATION

St. Louis Community College — CS, Web Development (2010) · University of Minnesota — Chicano Studies (2004)