JOSH ALPERT

Software Engineer | Applied AI & Agentic Platforms | Frontend Architecture

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SUMMARY

Software engineer with 9+ years shipping production web platforms, from multi-million-user media properties at FOX to patented AI products built from zero. **Named co-inventor on U.S. Patent No. 12,330,066** for an AI-driven, just-in-time game engine. Builder of multi-agent AI platforms combining LLMs with deterministic application logic and real-time human/AI collaboration. Instructor for Stanford University and AIPTD, teaching professionals to work productively with Claude, Claude Code, ChatGPT, Gemini, and Microsoft Copilot.

SKILLS

AI & LLM: Multi-agent system design, LLM application architecture, prompt engineering, AI-assisted development (Claude Code), Claude, OpenAI/ChatGPT, Gemini, Microsoft Copilot, NotebookLM; working knowledge of RAG, embeddings, and vector search

Frontend: React, Next.js, Vue, Nuxt.js, Redux, React Native, HTML5/CSS3, Tailwind CSS

Languages & Tooling: JavaScript (ES6+), TypeScript, Python, Node.js, Jest, Unix

Practices: Web performance optimization, A/B testing & experimentation (Optimizely), SEO, technical leadership, curriculum design

EXPERIENCE

AlgoWorks.ai | Palo Alto, CA (Remote) **Jul 2023 – Present**

Principal Software Engineer

- Co-invented the patented **Just-in-Time game engine (U.S. Patent No. 12,330,066)**, in which AI models generate game worlds and gameplay in real time while keeping a persistent, per-player knowledge store in sync; this is the core technology behind AI RPG Hub and the IntelliCopilot platforms.
- Developed **AI RPG Hub** (airpghub.com), a subscription AI game master for macOS, Windows, and web that pairs frontier LLMs with deterministic game logic for stats, inventory, and dice mechanics, delivering open-ended storytelling with reliable rules.
- Led development of **IntelliCopilot-EDU**, an AI-native learning platform with a CMS that auto-generates per-module AI agents from course content, AI-assisted grading, hierarchical role-based permissions, and real-time case simulations where any mix of humans and AI agents role-play with private, asymmetric knowledge.
- Building **IntelliCopilot-PM**, a project-management platform with 130+ specialized AI agents, a custom agent builder, and multi-human/multi-AI collaboration.
- Led engineering on a small, cross-functional startup team, taking products from concept through launch, including a live classroom beta pilot of IntelliCopilot-EDU.

Fox Corporation | Los Angeles, CA (Remote) **Jun 2020 – Jul 2023**

Technical Lead Engineer *Apr 2021 – Jul 2023*

Senior Software Engineer *Jun 2020 – Apr 2021*

- Led a team of 5 engineers on the frontends of **TheUSFL.com** and **FOX.com**, multi-million-user sites serving Fox Networks and Fox Sports audiences.
- Architected front ends in React (Next.js) and Vue (Nuxt.js), owning projects from inception through long-term maintenance.
- Introduced an A/B testing framework on Optimizely and led end-to-end performance optimization that improved Lighthouse performance scores by 75%.

Diamond.LA | Los Angeles, CA (Hybrid) **May 2019 – Jun 2020**

Software Engineer

- As an agency engineer on FOX content delivery platforms, shipped time-sensitive features and fixes for FOX.com and related FOX properties in large React/Redux codebases, with Jest test coverage.
- Diagnosed and removed performance bottlenecks across the application, doubling overall performance.

Truckxi (Jaimeg Inc.) | Monterey Park, CA **Aug 2017 – May 2019**

Lead Software Engineer

- Led a team of 4, delivering 4 products from kickoff to customer handoff: a barcode-scanning app, a point-of-sale system, a commercial purchasing platform, and supply chain management software.
- Built the React Native point-of-sale app to handle $1.2M+ in monthly transactions, and a consumer e-commerce web app generating considerable monthly revenue.

TEACHING & AI ENABLEMENT

Stanford University, Technology Training | Stanford, CA (Remote) **Sep 2023 – Present**

Instructor (Contract)

- Design and teach hands-on workshops for professionals, including Claude Code: Generate, Debug, and Improve Code with AI; Prototyping UI with Claude Artifacts & Tailwind; Building Specialized AI Assistants with Claude Projects; and Python Foundations with AI.
- Taught 40+ sessions of 5–20 learners each; rated **4.9/5 for instructor knowledge** with **96% of learners recommending** the workshop (130 evaluations, May–Aug 2026).

AIPTD (American Institute for Professional Training & Development) | Remote **Sep 2026 – Present**

Instructor (Contract)

- Teach a 24-workshop catalog spanning Claude, ChatGPT, Gemini, Microsoft Copilot, and NotebookLM, including a three-part Claude Code series from foundations to agentic systems in production.

PATENTS & AWARDS

U.S. Patent No. 12,330,066, Just-in-Time Game Engine for Game World Development and Gameplay **Jun 2025**

Co-inventor; assigned to RPG Fun, LLC

Microsoft Imagine Cup, National 2nd Round Semi-Finalist **Feb 2016**

IEEE GameSIG Intercollegiate Computer Game Showcase, 1st Place **May 2015**

EDUCATION

University of California, Irvine | Irvine, CA **Jun 2017**

B.S. Computer Science, Specialization in Information