

Mark Preston

AI-Native Staff / Principal Product Designer

hello@markpreston.co - Tucson, AZ - Remote, open to relocate

My favorite problems are problems with problems. I am a Product Designer with 20 years of experience using systems thinking, product judgment, and strategic design execution to solve highly complex, ambiguous challenges. I have a proven track record stepping into challenging, multi-layered environments to deliver detail-oriented user experiences, scale high-traffic digital platforms, and drive \$1.5M+ in incremental enterprise revenue. I independently build custom software applications, autonomous AI frameworks, and tools to help me turn complex ideas into functional realities. I am seeking Staff-, Principal-, or Lead-level roles focused on navigating difficult product challenges and driving systemic impact at scale.

Skills & Strengths: *Product Design Leadership, Design Systems, Systems Thinking, Cross-Functional Alignment, Platform & High-Traffic Design, Executive Storytelling & Buy-In, AI Agent Architecture & Governance, Figma & Design Tooling, Prompt Architecture & AI Workflows.*

Product Design Leader — HP - Aug 2021 to Present

- **Design Lead for HP's support website:** Exercising full ownership over **design, systems, and platform quality** while leading a mixed-seniority team through complex, ongoing delivery across the **high-traffic global ecosystem**.
- **Recipient of the 2023 HP Excellence Award:** Formally recognized by executive leadership for going "above and beyond" to maintain continuous design delivery and protect platform integrity through major workforce reductions and volatile org changes.
- Introduced and advocated for a shift in sales-at-support strategy through a cartridge compatibility upsell opportunity, **generating \$1.5M+ incremental YoY revenue** and contributing to a broader move toward contextual, user-aligned monetization.
- Within 12 months, led a **full brand rollout for HP's support website design**, delivering a complete site redesign and new design system to replace fragmented, page-level UI with a scalable foundation.
- Evolved the design system to adopt HP's global design system tokens and components, **leading cross-team and executive alignment** through clear storytelling and implementation planning, laying the foundation for future implementation in code.

Senior Product Designer — BRINK - Apr 2017 to May 2021

- Led end-to-end product design across multiple client engagements, working from discovery through delivery in a fast-paced agency environment. Consistently delivering on time and on budget.
- **Delivered an interactive splash page for UBER in four weeks**, iterating on design, experimenting with code, planning content, and collaborating with UBER's internal marketing team.

Earlier Experience: UX Designer / UX Design Lead roles — United Nude, A Goto B, and others **(since 2007)**

Advanced AI & Product Projects

I'm getting close to mad scientist territory, my creations have creations. I maintain a personal engineering sandbox to experiment and explore my ideas. My self-directed R&D practice, n'co studio, is where I've been focused on engineering solutions to the technical AI limitations that block my design ideas, leading me to build custom applications, autonomous AI orchestration frameworks, and production tooling. I use this environment to test system workflows, experiment with new interaction models, and execute code to the standards required for production-ready software.

Below are the core projects I have been developing:

Massimo Desktop application running governed AI build teams (Tauri 2.0 + React + Rust + SQLite/Postgres)

I built this desktop app to better orchestrate autonomous agents and provide an interface for the **Repo OS** governance and operations model. Running Repo OS allowed for governed headless AI workflows, but left me with little visibility into the agents and their work. Massimo is designed to surface the headless daemon agents, track their work, and serve as a tool for automated-collaboration, providing design tools for direct frontend editing, surfaces to manage design systems, component libraries, automated workflows, and agent outputs.

[Massimo v1 Product Showcase](#)

Repo OS Autonomous-agent governance model enforced by mechanical hooks over Claude Code

AI agents are both incredible and messy. When left unchecked, they present risks and challenges to design and production that can compound into major rework or endless fixes that negatively affect the productivity of AI-integrated processes. Since mid 2025, I have been building and refining a framework that allows me to safely collaborate with a multi-agent team, build shippable code, track decisions and changes, define effective prompts and briefs, and so much more. It's the culmination of all my experience across design, development, and process leadership. In the model's first controlled head-to-head test, Repo OS passed 60% more of the hidden code-running tests than an ungoverned agent.

[Repo OS Framework Overview](#)

Web Editor Chrome (MV3) extension + MCP server + build-tool plugin for visual-to-source editing (published, v0.2)

With a governance model established, I needed a quick way to make frontend-web-edits and communicate the diffs back to my AI agents. Supported by a new Repo OS session workflow model with MCP dev server integration and a live watcher, I built an AI-agnostic Chrome extension tool that maps compiled frontends to source code and gives the operator a WYSIWYG style editing surface with a full suite of design tools, and a panel to manage change requests and queues.

[Review Frontend Editor Feature Showcase](#)

TrailSherpa iOS mountain-bike navigation co-pilot (React Native / TypeScript, offline-first; ~35k lines, 18 screens)

This is the project that sparked Repo OS and Massimo. After building several web apps with AI assistance in 2025, I gained a strong working command of prompt building and AI fundamentals, and took on my first complex mobile build: TrailSherpa. The concept is a rally-style voice navigation assistant for mountain biking and off-road trails. I built a working iOS app with ElevenLabs, Apple Health, Apple Maps, Thunderforest maps, and Sentry integrations, and set up a GitHub Actions CI pipeline with an Xcode Cloud path to TestFlight. I iterated through field testing to design a trail-mapping engine and voice-queue system to accurately record trail data and trigger voice cues based on speed and distance. I began this project using a master-prompt, spec-driven development approach and quickly found the limits of convention-based governance. To enforce governance, I built the infrastructure as I went, which led me to my dedicated Git-template governance model: Repo OS.

Background

Born and educated in the **United Kingdom**; began my design career in **Shenzhen, China** (2007); immigrated to the **United States** (2016), now a US citizen. Two decades of diverse cultural and international landscapes have shaped my collaborative approach to leadership, complex problem-solving, and overall outlook on life.