

JACKSON BURCH

Full-Stack Product Engineer | 0-to-1 Builder | Cloud Architect Calvert City, KY (Remote) | (270) 217-4685 | jacksonburch95@gmail.com

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PRODUCT ENGINEER

I am a Full-Stack Product Engineer specializing in 0-to-1 development and complex system architecture. I transitioned into software after 7 years of conducting root-cause diagnostics on high-stakes mechanical systems, translating that troubleshooting logic into building fault-tolerant cloud infrastructure and AI-integrated ecosystems. I don't just write code to spec; I own the entire lifecycle. From identifying the human friction point and designing the UI, to architecting the serverless Next.js/GCP backend and shipping the product to production in days and weeks, not months and years.

TECHNICAL SKILLS

- **Core Stack:** Next.js 15, React, TypeScript/JavaScript, Node.js, HTML/CSS (Modern Glassmorphism UI)
- **Cloud & Infrastructure:** Google Cloud Platform (GCP), Cloud Run, Firebase/Firestore, Supabase, Vercel
- **Architecture & APIs:** Serverless Deployments, WebRTC (P2P Mesh Networks), Medusa.js (Headless e-commerce), Stripe API, CI/CD pipelines
- **AI Engineering:** Vertex AI, Gemini API, Multi-Agent pipelines, RAG architecture, LLM deterministic guardrails

ENGINEERING & PRODUCT DEPLOYMENTS

TryBreathing & TrybeBreathing Ecosystem | Digital Health & Telehealth Platforms

- **The Product Vision:** Identified that users in crisis cannot process text instructions to perform breathing practices. Designed a visual-first, high-performance pacing UI to bypass cognitive load and instantly regulate the nervous system using the biggest, most inclusive breathing technique directory in the world.
- **The Architecture:** Built a serverless PWA on GCP, engineering a Multi-Agent AI pipeline to autonomously parse, structure, and route 160+ somatic techniques into the database.
- **The Scale:** Deployed a sister application utilizing WebRTC and Firestore to enable synchronous, real-time telehealth co-regulation sessions with a live credit-routing system for up to 6 concurrent users per session.

Silver for the Soul | Headless E-Commerce Infrastructure

- **The Product Vision:** Built an automated, scalable retail infrastructure to handle high-volume boutique inventory without bottlenecking the frontend UX.
- **The Architecture:** Architected and deployed a decoupled Medusa.js backend with Stripe and Etsy API synchronization, focused on complete inventory automation and shipping fulfillment.

MinisterSuite & SermonTranscribe | Multi-Tenant SaaS & RAG Ecosystem

- **The Product Vision:** Architected an organizational portfolio shell and study-generation platform designed specifically for community leaders to automate transcription and research.
- **The Architecture:** Deployed a multi-tenant environment utilizing serverless GCP Cloud Run and Firebase to ensure automated, zero-maintenance scaling. Engineered RAG (Retrieval-Augmented Generation) pipelines to automate complex audio-to-text transcriptions and real-time data retrieval.
- **Monetization:** Integrated the Stripe API with custom routing to handle a flexible, dual-tier payment model featuring pay-per-use functionality and monthly recurring subscriptions.

NYH Foundation Crisis Bot | Enterprise AI & Security

- **The Product Vision:** Engineered a conversational AI chatbot specifically designed for high-risk crisis intervention, prioritizing user safety over continuous AI generation.
- **Deterministic Guardrails:** Architected hard-scripted fail-safes that immediately intercept and halt LLM operations upon detecting self-harm or abuse intent, seamlessly routing the user to human intervention.
- **Enterprise Compliance:** Secured a fully HIPAA-compliant staging environment by executing a Business Associate Agreement (BAA) within Google Workspace and provisioning strict GCP Identity and Access Management (IAM) controls.

StackNab.io | Developer Tooling & Headless Registry

- **The Product Vision:** Designed a comprehensive "Registry of Headless Capabilities" using Next.js to eliminate repetitive setup tasks for developers building high-performance architectures.
- **The Automation Engine:** Engineered an AI-driven pipeline that dynamically generates custom boilerplate code for niche headless tools and API integrations.
- **The CI/CD Routing:** Integrated these automated outputs directly with the frontend, configuring custom GitHub Actions and deployment scripts to rigorously verify operational logic and stability prior to staging.

PROFESSIONAL EXPERIENCE

Independent Product Engineer & Cloud Architect | Remote Oct 2025 – Present

- Architect, design, and deploy seven 0-to-1 SaaS platforms, managing end-to-end cloud infrastructure from secure database schemas to mobile-optimized UI.
- Engineer automated content pipelines and programmatic SEO (pSEO) engines to drive algorithmic growth and minimize administrative load.

Level 2 Diagnostic Technician & Temporary Foreman | Bluegrass BMW Jan 2020 – Oct 2025

- Mastered the architecture of complex, high-pressure mechanical and electrical networks, executing strict root-cause analysis on sensor data and circuit diagrams.
- Translated these rigorous diagnostic methodologies directly into software engineering, treating cloud environments like physical engines that must be highly observable, isolated, and fault-tolerant.
- Acted as Temporary Foreman, managing strict time constraints and technical documentation in a high-throughput environment.

*Further experience provided upon request.

CERTIFICATIONS

- **Google Cloud Associate Cloud Engineer (ACE)** — Target Completion: Q2 2026