Stephen Vowell

Inventor · 29 Yrs Product & Programming · MediAlert · 6× U.S. Patents (VUTP Hybrid Networks)
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Top Skills

- JavaScript
- Node.js
- Python (Programming Language)

Summary

I solve hard technical problems and ship complete solutions — not slide decks. Inventor and engineer with 29 years in product development and programming. Based in Sierra Vista, Arizona. Career path: Texon LP (midstream / technology-driven operations) → NASA contractor (security consulting in mission-critical environments) → independent consultant (security, communications, and product development). Along the way, co-inventor on six granted U.S. patents (Orbit-Matrix / Global Communications) for VUTP hybrid command management — reusing building infrastructure for lighting, HVAC, security, and content delivery. Today my focus is MediAlert: a camera-free, microphone-free bedside monitor using 60 GHz mmWave radar to detect presence and estimate breathing and heart rate, with staged SMS alerts to family when something looks wrong. I built the full prototype stack — ESP32-C6 firmware, Wi-Fi setup portal, alarm logic, Textbelt integration, and investor documentation. Open to licensing, acquisition, or co-development conversations with strategic OEMs, aging-in-place brands, and health-tech partners.

Experience

MediAlert — Co-founder

January 2024 - Present (2 years 11 months) · Sierra Vista, Arizona, United States

Co-founder of MediAlert, a contactless bedside wellness platform for caregivers. The system uses 60 GHz mmWave radar and ESP32-C6 firmware to monitor presence, breathing, and heart rate through the night — camera-free and microphone-free — with staged SMS alerts to family when something looks wrong. The Health Board (Node.js) brings wearable data — Oura Ring, Galaxy Watch, blood pressure, ECG — into one view for families. Built the full prototype stack: firmware, Wi-Fi setup portal, alarm logic, and investor materials. Open to licensing, acquisition, or co-development with strategic OEMs, aging-in-place brands, and health-tech partners.

Orbit-Matrix — Co-Inventor

2007 - Present (19 years)

Named inventor on 6 granted U.S. patents covering hybrid networks, mesh-style

distribution, and command authority for building and facility services (VUTP Hybrid Command-Management Systems).

Independent Consultant — Independent Consultant & Inventor

February 1997 - Present (29 years 10 months)

Security, communications, and product consulting — problem solving from requirements through deployable solutions. Inventor and lead firmware developer for MedAlert: contactless bedside wellness monitor (60 GHz mmWave radar, ESP32-C6, Wi-Fi portal, staged caregiver SMS). End-to-end delivery: hardware integration, alarm logic, operator UI, and investor materials.

Arango Farms — Solution Developer

January 2019 - January 2022 (3 years 1 month)

NASA — Security Consultant

2001 - 2003 (2 years) · Houston, Texas, United States

Delivered practical, deployable security solutions in mission-critical environments: risk assessment, control recommendations, and phased remediation without disrupting ongoing programs. Bridged security policy and engineering teams — translated compliance requirements into clear specs and follow-through under high-reliability expectations.

Texon LP — Solutions Developer

1997 - 2001 (4 years) · Houston, Texas, United States

Built custom systems for pipeline, terminal, and blending operations in a regulated production environment — requirements through deployment when off-the-shelf software didn’t fit. Collaborated with operations and engineering on reliable, maintainable solutions under production pressure.