



Austin, Texas

10+ Years Exp.

Multi-Disciplinary

AI Engineering - Product Strategy - Emerging Technology

Charles Jackson Barnes

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Summary

Solutions architect and technology leader with 10+ years across software engineering, product strategy, and emerging technology. Leads client engagements from discovery and solution architecture through implementation, combining AI orchestration with partner REST API integrations. Experience spans U.S. DoD innovation and Fortune 500 engagements. Helped scale an AI startup to \$3M+ ARR through product design and engineering.

Skills

Agentic AI

LLM / RAG

MCP

Evals

Azure

APIs

Cloud

Strategy

UX

Experience

Otherwise - Founder & Principal AI Solutions Engineer

(2025-Present)

Full-time - Austin, Texas - Remote

Lead an AI-native agency, guiding clients from discovery and solution architecture through design and implementation. Translate client needs into AI products using agent orchestration, RAG, partner REST APIs, and human-centered workflows. Work directly with clients to define requirements, evaluate technical tradeoffs, and turn early concepts into working software.

- **Founded an AI-native agency guiding clients through strategy, solution design, implementation, and delivery**
- Build agent workflows with RAG, persistent context, tool use, REST APIs, webhooks, and human escalation
- Built Handoff, a full-stack AI workspace with MCP integration, using Cloudflare and Next.js
- Implement structured outputs, function calling, and evaluations to support reliable LLM behavior
- Lead product and brand design in Figma and Adobe Creative Suite, including UI systems, marketing, and motion
- Deliver product design and engineering across AI, XR, and emerging technology projects

AIVideo.com (YC '24) - Staff AI Product Design Engineer

(Dec 2024-Present)

Full-time - Austin, Texas - Remote

Designed and built AI product experiences for a YC-backed startup, including an AI-assisted media editor and Pixyl, an AI-enabled design-system platform. Worked across product design, prototyping, and engineering during rapid product growth. Led the AIVideo.com rebrand and developed shared design tokens to support consistent interfaces.

- **Helped scale the business from \$8K/month to \$3M+ ARR through AI product design and engineering**
- Built an AI-assisted media editor with coordinated panels, timeline, preview, and a persistent prompt box
- Created Backlots, a shared context engine for scripts, characters, environments, and style assets
- Designed and built Pixyl, an AI-enabled design-system platform using Next.js, Drizzle, and Postgres
- Led a cinematic rebrand with a new palette, typography, and graphics produced in Figma and Photoshop
- Received a YC podcast mention for an approach to designing with AI
- Established a design-token system for color, typography, and spacing, authored in Figma

Booz Allen Hamilton - Senior Innovation Engineer - AI/XR Solutions Architecture

(2021-2024)

Full-time - Austin, Texas - Hybrid

Led XR/AI solution development within Booz Allen's BrightLabs, collaborating with DoD clients, technology partners, and researchers on architecture, integration, and technical demonstrations. Work spanned AI/ML, cloud and edge computing, digital twins, 5G/6G, human performance, and live 3D medical overlays. Earned the Technical Excellence Award, receiving recognition from the Chief Innovation Officer in Washington, DC.

- **Architected 5G partner REST API integration for Mobile Medic's Unity/iOS medical mentoring prototype**
- Supported a government demonstration of Mobile Medic for a Joint Base San Antonio pursuit
- Worked with former NASA astronauts to ingest live biometric streams into a Human Digital-Twin analytics app
- Developed features across web, mobile, and XR applications using experimental technology stacks
- Led code reviews and DevOps improvements to support reliable Unity application releases
- Combined UX design and engineering leadership on multidisciplinary projects for U.S. DoD clients
- Ran weekly design-engineering workshops and onboarded 10+ engineers to immersive development tools
- Developed Tricorder's agentic capabilities with two PhD AI researchers for an internal XR prototype

Double A Labs – Full-Stack Engineer & Immersive Product Architect

(2018-2021)

Full-time – Austin, Texas – On-site

- **Helped lead strategy, ideation, and presales client meetings with Fortune 500 companies**
- Designed and developed XR applications for immersive experiential media engagements
- Architected mixed reality interfaces for client XR applications, with designs in Figma and Adobe XD
- Applied UX/UI best practices to the design and development of XR applications
- Translated technical solutions into sales and pitch materials for producers and strategists
- Explored Web AR, volumetric capture, and holographic technologies for new applications
- Developed XR applications using AR Foundation, MRTK, OVR, and related SDKs
- Optimized and maintained reusable C#/.NET packages for future XR software projects
- Helped manage DevOps and establish version control practices across development pipelines
- Led the design and development of prototypes to assess the viability of future products

University of Texas at Austin – Guest Lecturer & TA: ITD 150 Intro to Augmented Reality

(2019-2019)

Part-time - Austin, Texas - On-site

- **Delivered lectures covering mixed reality development and design**
- Answered student questions in class and guided their learning
- Supported students with technical and design questions for their final projects
- Explained AR/VR/XR/MR concepts using devices including ML1, Quest, and HoloLens

Spatial Cinematics – Freelance Product Designer & Prototype Engineer

(2017-2021)

Part-time - Austin, Texas - Hybrid

- **Designed spatial interfaces for mixed reality devices, including HoloLens, Quest, and handheld displays**
- Developed XR concepts using user-centered design methods and patterns
- Partnered with engineers to translate designs into production-ready features for core applications
- Applied current XR design trends to new products
- Developed and maintained reusable packages for XR software projects
- Prototyped new ideas with XR SDKs, frameworks, and toolkits
- Updated designs across core XR projects and clearly communicated changes to the team

Freelance UX/UI Designer & Creative Technologist (Edtech)

(2016-2017)

Full-time - Austin, Texas - Hybrid

Delivered UX/UI consulting and freelance design for Austin-area EdTech startups. Helped teams explore emerging technologies, including AR/VR, and translate learning needs into clearer, more engaging product experiences.

- **Produced high-fidelity wireframes, product mockups, site maps, task models, and user journeys**
- Conducted competitive analysis to compare layouts and features
- Considered student-teacher relationships in the design of learning management interfaces
- Applied information architecture, usability testing, and A/B testing methods
- Created visual designs, style guides, scenarios, and storyboards
- Used UX research to inform design decisions
- Designed educational interfaces for clarity and usability
- Led design workshops with internal and external stakeholders

Education**General Assembly – UX/UI Design Immersive + Austin Coding Academy – C# / .NET**

(2016-2017)

Full-time - Austin, Texas - On-site

General Assembly: Full-time, 12-week bootcamp (500+ contact hours with real clients) focused on user-centered research, interaction design, prototyping, and front-end development. Capstone work shipped as live products for real companies. **Austin Coding Academy:** Project-based program covering object-oriented programming, RESTful APIs, and Entity Framework for full-stack development with .NET.

I chose an accelerated, hands-on path over a traditional university program, combining intensive bootcamps, self-directed learning, and freelance projects. This approach developed a cross-disciplinary toolkit spanning engineering, design, and systems thinking, with an emphasis on practical problem-solving.