

BARRETT LONG

PRODUCT-FOCUSED SOFTWARE ENGINEER · UX DEVELOPER · TECHNICAL LEADER

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PROFESSIONAL SUMMARY

Product-focused software engineer and architect with 15+ years spanning design, UX, full-stack development, platform architecture, and engineering leadership. Principal architect and technical lead behind COM·MU·NI·KIT, a white-label communications SaaS platform that grew from one community deployment to more than 260 communities and hundreds of thousands of users across Canada and the United States. Known for simplifying complex products, building maintainable systems, and translating business and user needs into scalable software.

SELECTED IMPACT

- Architected the evolution of COM·MU·NI·KIT from an experimental single-community application into the company's flagship configurable SaaS platform.
- Led a ground-up Version 2 redesign that replaced fragmented client-specific implementations with a unified product model built for extensibility, performance, and sustainable growth.
- Reimagined the mobile experience around a single personalized feed, replacing hierarchical navigation with an accessible, intuitive model for news, events, jobs, forms, documents, and other community content.
- Built and mentored an engineering team while remaining deeply hands-on across product strategy, UX, frontend, backend, mobile, infrastructure, delivery, and code quality.

CORE EXPERTISE

PRODUCT & UX

Product architecture · UX strategy ·
Information architecture ·
Design systems · Accessibility ·
Analytics

ARCHITECTURE

Domain-driven design · Multi-tenant SaaS ·
Event-driven systems · APIs · Caching ·
Background jobs

LEADERSHIP

Technical direction · Hiring · Mentorship ·
Code review · Standards · Cross-functional
collaboration

ENGINEERING

TypeScript · JavaScript · Node.js · PHP ·
Laravel · React · Vue · Next.js

PLATFORM

SQL · NoSQL · Redis · Docker · CI/CD · Git ·
WordPress · Drupal

MOBILE & AI

Swift · Kotlin · Push notifications · AI-as-
sisted development · Agentic workflows

EXPERIENCE

Aivia Inc. | Software Engineering Manager & Lead Full Stack Developer

2017-2026 · Progressed from part-time web developer and designer into product architecture and engineering leadership

Joined a small digital agency supporting design, HTML email, and web work, then progressively assumed ownership of increasingly complex software initiatives. Became the principal architect and technical lead for COM·MU·NI·KIT while also delivering custom client software and helping shift the company toward a SaaS-first business model.

- Built the original COM·MU·NI·KIT product across its administrative web application, backend services, native iOS app, and native Android app after earlier mobile-development efforts had stalled.
- Designed a white-label platform model that allowed independently branded customer applications to share a common backend and product foundation.
- Defined the product and architectural principles for Version 2, including eliminating client-specific code in favour of configurable capabilities designed to benefit the full customer base.
- Replaced folder-driven navigation with a unified, sorted feed and a consistent extensible content model, improving discoverability while supporting multiple content types and future expansion.
- Designed publishing workflows for guest and registered audiences, scheduling, audience targeting, per-item push notifications, payments, forms, events, news, jobs, documents, and other community services.

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- *Architected a TypeScript and Node.js backend using domain-driven design, domain events, job processing, Redis caching, extensive application caching, Docker-based environments, and analytics instrumentation.*
- *Led the migration of every existing customer from Version 1 to Version 2 while maintaining continuity and enabling the platform's next stage of growth.*
- *Helped scale the platform from its first community to 128 communities and then beyond 256, ultimately supporting hundreds of thousands of users and more than 260 branded community deployments.*
- *Grew the product team from a small development function into a multidisciplinary group of up to five full-time developers and designers plus part-time contributors; recruited, interviewed, hired, mentored, and reviewed the work of team members.*
- *Established engineering standards, Docker environments, and responsible AI-assisted development practices while continuing to contribute directly to implementation.*

Freelance | Full Stack Web Developer | Designer

2015 - Present

Coordinated and communicate with freelance clients to plan web, mobile and software development projects from initial concept through to completion, utilizing a variety of web development tools, development languages and technologies.

- *Partner with clients from initial discovery through delivery, translating business goals into websites, applications, integrations, and user experiences.*
- *Provide end-to-end support across design, frontend and backend development, CMS implementation, deployment, and ongoing technical guidance.*
- *Balance visual quality, usability, scope, and maintainability for organizations that need practical solutions without large internal product teams.*

Trickster Theatre | Content Creation Manager | Designer | Developer

2014 - 2016

Manager of on-line digital content creation, videography, video editing, designer of print and online promotional materials, in house web developer, and server administrator.

- *Managed online content creation, videography, video editing, print and digital promotional design, in-house web development, and server administration.*
- *Combined creative production and technical delivery to support educational and theatrical programming.*

Alfred University | Teaching Assistant

2012 - 2014

Assisted in teaching undergraduate level classes in disciplines including Print Media, Design, 3D Sculpture and Digital Media. Conducted demos, lectures, critiques and held office hours in the evenings and on weekends to further assist students.

- *Supported undergraduate courses in print media, design, digital media, and 3D sculpture through demonstrations, lectures, critiques, office hours, and individual student mentorship.*

EDUCATION

2015 - 2016

Northern Alberta Institute of Technology • Edmonton, Alberta

Digital Media and IT - Computer Software Development (Dean's List)

2012 - 2014

Alfred University • Alfred, New York

Masters of Fine Arts - Electronic Integrated Art (Digital Media)

2007 - 2011

Alberta College of Art + Design • Calgary, Alberta

Bachelors of Fine Arts with Distinction - Print Media

PORTFOLIO

Case studies, selected work, and professional background: studiobirdcage.com