

Josh Roll

Senior Front-End Developer

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PROFESSIONAL SUMMARY

Creative and detail-oriented Front-End Developer with 4+ years of professional experience building and maintaining cross-platform mobile and web applications using React Native, React, and Next.js. Skilled in architecting scalable solutions on Firebase, Google Cloud Platform (GCP), and AWS. Proven success designing and delivering production-ready software across healthcare, legal, IoT, and commerce sectors—from concept to deployment in the Apple App Store, Google Play Store, and web.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python

Frameworks & Libraries: React, React Native, Next.js, Firebase, Google Cloud Functions, AWS Cognito

Databases & Storage: Firestore, Realtime Database, MongoDB, Airtable

DevOps & Cloud: GCP (Cloud Functions, Storage, Gemini, GA4), AWS (Cognito, S3), Vercel

Testing: Jest, React Testing Library

Tools: Xcode, Android Studio, VS Code, GitHub, Bitbucket, Airtable, Figma, Trello

Deployment: Apple App Store, Google Play Store, Vercel

PROFESSIONAL EXPERIENCE

Krutsch Design – Senior Front-End Developer · June 2021 – November 2025

(React Native, React, Next.js, Firebase, GCP, AWS)

Developed and maintained cross-platform mobile and web applications across healthcare, legal tech, IoT, and commerce. Architected Firebase infrastructures with Firestore, Auth, Cloud Functions, and Analytics integrated into GCP services. Implemented custom UI components and theming systems in React Native and React aligned with Material Design 3 standards. Built and deployed Next.js/Vercel admin portals for customer management and analytics dashboards. Integrated Stripe, SendGrid, and Typeform APIs for payments, messaging, and data capture. Collaborated with designers and project leads using Airtable, Figma, Bitbucket, and GitHub for sprint management and version control.

SELECTED PROJECTS

MHIF Heart Apps Suite – React Native / Firebase / GCP

Challenge: Cardiologists required a way to keep clinical data current without relying on ongoing developer support, while also providing accurate, portable tools to calculate and compare surgical risk scores and patient outcomes. The apps needed to function reliably offline inside operating rooms, support global data sharing among physicians and researchers, remain free to access, and operate without collecting personal information or requiring user accounts.

Solution: Engineered a React Native app suite powered by Firebase and GCP Cloud Functions, designed for both online and offline reliability. Implemented a low-code backend enabling researchers to update datasets independently while maintaining data integrity. Built secure synchronization and caching logic to ensure accurate, up-to-date results even when offline. Delivered a globally available toolset now used by cardiology professionals and research teams worldwide to improve decision-making and collaboration.

UdoitLegal – Next.js / Python (Docassemble) / Firebase / GCP

Challenge: The client needed a seamless, cross-platform experience to deliver affordable self-help legal services through guided interviews that generate complex legal documents. The system had to integrate with an existing Squarespace marketing site while maintaining a single sign-on experience, secure payment processing, and user access control — all without requiring users to switch platforms or reauthenticate.

Solution: Built a unified React + Next.js dashboard that connected Squarespace, Firebase, and Docassemble into a single workflow. Using custom code injection, user data was pulled from Squarespace and securely synced

to Firebase Auth and Firestore, automatically creating accounts in both Firebase and Docassemble. Integrated Typeform to route users to the correct legal interview packages and Stripe payments with webhooks to dynamically update user permissions and document access. Delivered a frictionless user experience with transparent sign-in, payment, and document generation.

Owlcam App Redesign – React Native / AWS / BLE / Maps API

Challenge: The legacy Owlcam mobile apps were built separately in Swift and C++, leading to poor performance, inconsistent user experiences, and declining user reviews. With no active development team or documentation, the new build required reverse-engineering key components to stabilize the product and modernize the codebase.

Solution: Rebuilt the app entirely in React Native, consolidating both platforms into a single, maintainable codebase. Integrated AWS Cognito for secure identity management, implemented a BLE connectivity bridge for real-time dashcam communication, and added APN/FCM push notifications for event alerts. Delivered a cleaner UI, improved reliability, and a unified experience across iOS and Android.

Shaw/Stewart Lumber – React Native + Web Portal / Firebase / GCP / Agility ERP

Challenge: The client's legacy Xamarin app was no longer supported and could not meet the needs of a growing dual-location customer base. Shaw/Stewart needed a modern, cross-platform solution that unified mobile, web, and admin tools under one stack. The new system had to integrate tightly with their Agility ERP for inventory, billing, and customer-specific pricing, while supporting invitation-only access and flexible visibility options for different customer tiers.

Solution: Rebuilt the entire solution stack using React Native for mobile and Next.js for web, creating a consistent experience across devices. Implemented Firebase Authentication for secure onboarding and rearchitected middleware to optimize ERP data flow and product filtering performance. Leveraged automated GCP Cloud Functions to keep orders, inventory, and customer data continuously synchronized with Agility, replacing the legacy nightly batch updates. Developed an admin portal in Next.js, deployed via Vercel, to manage users, orders, and pricing dynamically.

Parade of Homes – React Native / Firebase / GCP / Gemini

Challenge: The client's previous mobile app suffered from reliability issues and outdated architecture, leaving participants dependent on a physical guidebook and web listings to plan home tours. They needed a rebuilt platform that provided the same dependable information as the printed version, while introducing digital-only advantages such as personalized tour planning, map-based routing, and user preference filtering.

Solution: Rebuilt the Parade of Homes experience using React Native and Firebase, integrating Google Maps for real-time location routing and Firestore for synced tour data. Migrated the legacy backend to Google Cloud Platform to streamline data flow between the mobile app, Firebase, and Webflow CMS, allowing internal staff to manage listings and content directly. The app also served as the pilot implementation of AppSight™, enabling detailed tracking of user stories and context-specific tour summaries to inform future event planning.

Vet Redeem – React / Next.js / Firebase / ID.me / AI Automation

Challenge: Veterans and their families needed a single, secure, and mobile-friendly platform to discover and access their earned federal and state benefits. Existing resources were fragmented across multiple government sites and frequently out of date, making it difficult for users to determine eligibility or locate active programs.

Solution: Developed a mobile-first web application using React and Next.js, integrating Firebase Auth and ID.me for secure identity verification. Implemented a context-driven AI system that parses legislative updates and automates content refreshes to keep benefit information current. Delivered an accessible, scalable platform that provides veterans and their families with accurate, real-time access to their earned benefits.

AppSight – React Native / Next.js / Firebase / GCP

Challenge: Most apps in production lacked a cohesive way to understand how users interacted with key features or where engagement dropped off. Teams had to rely on fragmented analytics tools that couldn't connect behavioral data to specific user journeys, limiting their ability to make informed design and product decisions.

Solution: Designed and developed AppSight, a cross-platform analytics framework built with React Native, React, and Next.js. Leveraged Firebase (Admin SDK, Firestore, Analytics, Crashlytics) and GCP (Cloud Functions, Gemini, GA4) to collect and process interaction data in real time. Implemented an AI-driven event mapping layer that transforms raw telemetry into actionable "App Stories," highlighting friction points and engagement trends across both mobile and web. Piloted the platform with the Parade of Homes app to track user

tour activity and guide product updates.

EDUCATION

Minneapolis Community and Technical College – Web Design and Front-End Development A.A.S.
Jan 2019 – May 2021 · Minneapolis, MN