



## Ian MacCallum

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**Languages / frameworks / libraries:** Frontend: React.js / Next.js / Typescript / Tailwind / shadcn, Backend: Node.js / Express / Sequelize, Mobile: Swift / iOS

**Containerization/Orchestration:** Kubernetes, Helm, Helmfile, Mozilla SOPS, Docker / DC

**Other:** AWS (S3 / RDS / CF / IAM / CFN), Digital Ocean, databases (PostgreSQL), Specs: Open API Spec (Swagger), DBML, message queues (SNS / SQS), proficient designer (Figma)

**SaaS:** Billing: Stripe / Apple IAP, Auth: Auth0 / NextAuth, Email: SendGrid / Resend / React Email

## Experience

### **ONLY RECIPES – SIDE PROJECT – DECEMBER 2025 - JANUARY 2025**

- A simple recipe keeper that allows importing from any website – my brother originally built the iOS app a few years back and had moderate traction but hadn't updated the app in over a year. We had the idea to bring it to the web as well as host all the recipes that have been imported as SEO content
- Designed and developed entire marketing site (including SEO content), recipe database / directory and web application
- Stack: React / Next.js / Tailwind / shadcn, Postgres / Prisma, NextAuth, Stripe

### **DIYPROJECT.AI – SIDE PROJECT – NOVEMBER 2025 - DECEMBER 2025**

- A passion project to keep my home DIY projects organized and an experiment in SEO and creating an optimal code base for agentic development
- Designed and developed entire marketing site (including SEO content) and dashboard as well as AI project plan generation
- Grew organic SEO to about 50 clicks and several signups per day in a competitive space
- Never really had a plan to monetize, so moved on but still use the project for my DIY projects
- Stack: React / Next.js / Tailwind / shadcn, Postgres / Prisma, NextAuth, React Email / Resend, Stripe

### **DUB, REMOTE – CONTRACTOR – OCTOBER 2025 - NOVEMBER 2025**

- Built the Dub iOS SDK (<https://github.com/dubinc/dub-ios>) including docs / sample projects
- Built the Dub RN SDK (<https://github.com/dubinc/dub-react-native>) including docs / sample projects
- Implemented application form builder, allowing partners to create custom forms for onboarding affiliates
- Batched click count database writes resulting in a 90% drop for the most expensive query

### **PARRA, REMOTE – FOUNDER – MARCH 2024 - OCTOBER 2025**

- Created a company to make it easier to launch and scale mobile apps by building a single platform with auth, user management, product tools, feedback, support, notifications, email, and billing.
- Backend: Architected and developed microservice architecture with Node.js (test suite with Jest) APIs and an API Gateway, secured with Auth0. Deployed to Digital Ocean via Kubernetes / Helm / Helmfile.
- Frontend: Designed, architected, and implemented the marketing site ([parra.io](https://parra.io)) and the dashboard ([dashboard.parra.io](https://dashboard.parra.io)) with React / Next.js and Tailwind, deployed on Vercel. Maintained component library with Storybook.
- We were unable to find traction and decided to move on

**UNIVERSE (YC W18), REMOTE – TECH LEAD / API LEAD / STAFF ENGINEER – AUGUST 2020 - MARCH 2024**

- Responsible for architecture, code review, hiring, mentorship, and P0 / P1 API bugs.
- Rebuilt existing iOS IAP billing infrastructure to support customizable plans, products, and entitlements with promo codes, affiliate links, and attribution while expanding functionality for web subscriptions (Stripe) and A/B testing price tiers.
- Implemented shared test harness/utilities for application level unit testing, documented testing process/philosophy, led testing education efforts, and coordinated implementation of CI/CD pipelines resulting in a reduction of the developer feedback loop from ~15 min to seconds, doubling test coverage over a ~6-month span, and drastically reducing broken code merges and rolled back deployments.
- Conducted technical interviews for candidates interviewing for positions, including API engineer and Senior DevOps Engineer.
- Implemented dispute evidence automation and fraud mitigation with account correlation and shadow-banning of bad actors.
- Coordinated with product and design on scoping implementation of account deletion, subscription cancellation, Braze in-app messaging in the iOS app, and dozens of other features.
- Refactored and decoupled legacy monolith into a series of microservices with clearly defined responsibilities such as billing, domains, tracking/analytics, notifications, etc.
- Implemented MVP for Universe web app ([web.univer.se](http://web.univer.se)) using React.js (SPA) – including auth with Auth0, HTTP layer, and a simple linked list editor – this was a 2-week experiment and has been driving a growing portion of signups.
- Implemented comprehensive system-wide Role-Based Access Control (RBAC) to secure all endpoints based on easily configurable roles, resources, actions, and policies modeled after AWS IAM.
- Implemented message queue infrastructure with AWS SNS /SQS to transition to an Event-Driven architecture with a series of publishers and workers for each domain.
- Created an event service to intercept every event fired onto the message queue and write them to a database for growth, and provide developers with the ability to replay failed events.

**STABLE KERNEL, ATLANTA, GA – SENIOR SOFTWARE ENGINEER / CONSULTANT – 2018 - AUGUST 2020**

**Tarkenton / GoSmallBiz Legacy System Rebuild – Tech Lead – 1 year**

- Rebuilt core service API for company/user/role/license/product/subscription management and integrated with Stripe, Azure Active Directory, and other third-party SaaS products.
- Coordinated with developers to decouple existing services and transition inter-service communication from shared databases to RESTful APIs and a message queue (RabbitMQ).
- Implemented a comprehensive Role-Based Access Control (RBAC) strategy using a single Access Control List (ACL), code generation, and EJS templates to export to both frontend and backend.
- Architected and implemented QnA API and rebuilt white-labeled “Members” web app for asking and receiving answers to business-related questions.
- Built an admin dashboard to manage users and for consultants to answer questions.
- Migrated data for ~350K users and executed a phased rollout to different user segments.
- Technologies: Node, React, Docker, Kubernetes, Helm, Stripe, Azure / AD, RabbitMQ.

**NBA – Android Feature Team Lead (~6 months)**

- Led a distributed team of 5 for “playoffs” feature set to deliver a new schedule module and ad units.

- Refactored and thoroughly tested revenue-crucial ad utilities responsible for millions in revenue.
- Implemented a collapsing header on the team/player profile screen. Refactored player profile screen to decouple it from the rest of the app.

### **Rheem iOS Project Lead (~3 months) / Android Project Lead (~3 months)**

- Implemented aggregate social media feed (Instagram, Twitter, Facebook, YouTube, Rheem news), search/filtering, Multi-caller AR Chat with Twilio, and water heater registration promo features.
- Implemented warranty claims, warranty registration, water heater registration promo UI, and backend with image upload using AWS Lambda and S3, and "impersonation" feature.
- Trained Rheem's newly hired iOS and Android developers.

### **DANCE MARATHON AT THE UNIVERSITY OF FLORIDA – TECHNOLOGY CAPTAIN – 2014 - 2016**

- Developed initial version of iOS app to keep users informed on deadlines, events, and general info about the largest UF fundraiser benefitting Children's Miracle Network Hospitals.
- App Store: <https://itunes.apple.com/us/app/dance-marathon-at-uf/id955595609?mt=8>

### **Side Projects**

- Only Recipes – <https://onlyrecipes.app>
- DIYProject.ai – <https://diyproject.ai>
- Mojo Score Keeper – <https://apps.apple.com/us/app/mojo-score-keeper/id6749283633>

### **Blog**

*"Coordinators, Routers, and Back Buttons"* - [medium.com/hackernoon/coordinators-routers-and-back-buttons-c58b021b32a](https://medium.com/hackernoon/coordinators-routers-and-back-buttons-c58b021b32a)

### **Education**

**BACHELOR OF SCIENCE, COMPUTER SCIENCE – UNIVERSITY OF FLORIDA - 2018 – GAINESVILLE, FL**