

Duncan Crawbuck

crawbuck.comduncan@crawbuck.com[\(925\) 548-7020](tel:(925)548-7020)github.com/dcrawbucklinkedin.com/in/dcrawbuck

Software Engineer with iOS, Full-Stack, and AI Data Engineering experience.

4 years of experience in fast-paced startups: rapidly delivering ambitious projects, quickly adapting to new technologies, and collaborating in dynamic remote environments. Passionate about building magical products and tackling complex problems, no matter the language or stack. Seeking a collaborative, mission-driven remote team where I can make a real impact.

Skills

- **Languages:** Swift, Python, Java, SQL, JavaScript
- **iOS:** UIKit, SwiftUI, AVFoundation, WebSockets, ARKit, Fastlane, XCTest, XCUITest
- **Full-Stack:** REST APIs, Postgres, MongoDB, AWS (S3, EC2, EB), React
- **AI & Data:** Large-Scale Data Processing, Model Deployment & Inference, GPT API + Fine Tuning, Docker
- **Product:** A/B Testing, Feature Flags, Rapid Iteration, Cross-Functional Collaboration

Experience

Natural Synthetics

June 2021 - November 2024 — Multiple roles and products

Full-Stack Software Engineer

Hotshot — *Make personalized generative AI images & videos*

- Part of a team of 4 that trained a Sora-level text-to-video model from the ground up in 4 months, generating HD video up to 10s at 24 fps: hotshot.co/release
- Built and managed distributed data processing pipeline in Python to prepare large image and video datasets for model training, handling 1B+ samples and multiple petabytes of data.
- Led end-to-end frontend and backend product development for iOS app and website, including subscription paywalls, user-friendly and moderated model inference, and a personalized invite system.

Lead iOS Engineer

Codename — *Make & share videos as your Avatar*

- Led all iOS development of a TikTok-style app from the ground up, managing the iOS team, conducting code reviews, and architecting the app to align with product specifications.
- Drove rapid product iteration using feature flags, A/B testing, and dynamic, server-controlled UI, enabling feature adjustments without requiring new client builds.
- Individually contributed to full-stack feature development, building a custom framework for on-device non-custodial crypto wallets, and the “Collabs” feature (FaceTime + Avatars) with live audio and multiplayer 3D avatar interaction.

iOS Engineer

Itsme — *Meet & talk with friends as your Avatar*

- Quickly onboarded onto an extensive, pre-existing codebase, shipping daily App Store updates to millions of users while maintaining consistent stability and performance.

- Led the full-stack development of “Parties”, a Clubhouse-style livestreaming feature, collaborating closely with a designer to refine the user experience and interface.
- Developed a high-performance, real-time hand tracking system, leveraging a customized framework to process raw camera data into precise 3D coordinates.

Playbyte

March 2021 - June 2021

QA Engineer Intern

[Playbyte](#) — *Create & play games on your phone*

- Conducted end-to-end testing of iOS app and game creation tools for new feature implementation and functionality.
- Owned testing and bug reporting process in an agile development workflow, producing detailed bug reports and tracking ongoing quality status.
- Oversaw community engagement, communicating updates and new features, responding to user feedback directly and in the development process.

Projects

YAP Notes

AI Summaries of Voice Memos — [App Store](#)

- Built a friendly, easy-to-use iOS app for recording voice memos and summarizing them with AI.
- Utilized on-device Whisper models for efficient live transcription, GPT API for summarization, and SwiftUI + Combine for a responsive user experience.
- Deployed a custom API server to provide feature flags and remote configuration of app content.

Cerebrux

iMessage for Local and Remote LLMs — [App Store](#)

- Developed an iMessage-style app to enable anyone to easily chat with AI in a familiar interface, following Apple’s HIG for an intuitive and seamless user experience.
- Integrated llama.cpp with a Swift layer to run models optimized for on-device use like Llama, Qwen, and Ministral, and proxied requests to remote LLM APIs.
- Implemented in-app subscriptions with RevenueCat, automated build distribution and metadata management with Fastlane, and automated testing with XCTest and XCUITest.

More: crawbuck.com/projects

Education

California State University, Sacramento

- Bachelor of Science, Computer Science
- Dean’s Honor List, cum laude