

Bonsung Koo, Senior Software Engineer - iOS

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A Senior iOS Engineer building and scaling native apps since 2016, from an international reference implementation of an image standard to an app used by 300,000 people across 15 countries. I specialise in modular architecture, retiring legacy systems, and automating the delivery lifecycle. More recently I have been the sole engineer on a full product, and I do agentic AI engineering, building the development environment my team's coding agents work in.

Key Strengths & Achievements

- **Native iOS Development:** Production iOS across two companies since 2016, years in UIKit and then leading the team's move to SwiftUI from 2023.
- **Architectural Modernisation:** Modular Architecture with Tuist and Swift Package Manager that made builds **7.5 times faster**, and Clean Architecture with MVVM that lifted team productivity by over **50%** through code reuse.
- **Delivery & Testing:** A company's first CI/CD pipeline, cutting release time from **2 hours to 20 minutes**, and its first automated testing strategy, taking coverage from **0% to 30%**.
- **Agentic AI Engineering:** Built the environment my team's coding agents develop in, where each repository carries its own instructions for them and work starts from a written specification rather than a prompt, and deliver production work through it every day. Extended the same approach into Sentinel.
- **Ownership & Leadership:** Sole engineer on a full product today, lead of a three-person iOS team before that, and mentored a junior engineer to **intermediate within two years**.

Work Experience

AIRIE | Wellington, New Zealand

Senior Software Engineer | July 2025 - Present (part-time to December 2025, full-time since)

- Engineered a customer-facing web platform for immigrants with React, TypeScript and Vite, then took on its backend and built its design system and the Figma workflow around it, ending as **the sole engineer across all three repositories**.
- Designed and executed a multi-phase migration of the entire product onto a new hosting stack, retiring the previous platform's data layer, API and front-end integration in staged releases with **no interruption to service**.
- Built the **agent-operated development environment** the team works in and ships through every day, with per-repository agent instructions, a specification-first workflow, and a categorised knowledge base that makes previously solved problems retrievable.
- Mentored an intern developer through an 8-week programme that ended with **a production-ready feature they shipped themselves**.

Shopl and Company | Seoul, South Korea

Lead & Senior iOS Engineer | August 2021 - June 2024

- Engineered and scaled a native iOS app (Shopl) for task management, serving **300,000+ employees** across 60,000 workplaces in more than 15 countries.

- Introduced Modular and Clean Architecture to the codebase, drove the **team's transition to SwiftUI** from 2023 while keeping UIKit in maintenance, and led the migration of a critical **Objective-C legacy system to Swift**, retiring it completely.
- Built the company's first CI/CD pipeline with GitHub Actions and fastlane and its first XCTest suite, moving QA **from monthly to weekly releases** with production crashes arriving in Crashlytics fully symbolicated.
- Built and led a team of three iOS engineers, **ran code reviews** with them, mentored two engineers, and co-authored the team's iOS coding standards.

PJ FACTORY | Seoul, South Korea

Intermediate iOS Engineer (October 2018 - June 2021)

Junior iOS Engineer (October 2016 - September 2018)

- Developed a specialised iOS app ([Detail](#)) to create and manipulate images in the new DTL ([JLINK / JPEG Systems Part 7](#)) format, serving as **the official reference software for the standard**.
- Applied **functional and reactive programming** alongside MVC and MVVM to architect a more resilient codebase, decouple components and simplify data flow.
- Owned the **end-to-end iOS lifecycle**, managing all App Store submissions and releases, and built responsive interfaces with UIKit and AutoLayout following Apple's Human Interface Guidelines.

Selected Projects

Sentinel | usesentinel.tools | npmjs.com/package/sentinel-mcp

AI-powered GitHub issue fixer, issues in and pull requests out (2026)

- **Designed and built the whole system solo.** A Cloudflare Worker receives GitHub App webhooks and relays them through a Durable Object to a local MCP server running inside Claude Code, which spawns headless Claude sessions to investigate issues, implement fixes and open pull requests.
- **Built to run unattended**, which meant scoping each task narrowly enough for a session to finish it without supervision, and handling the failures rather than watching for them.
- **Test-driven by rule**, with no production code written before a failing test and every bug fix shipping alongside the regression test that catches it.

Surcharges | github.com/b0nsun9/Surcharges-iOS

solo-built consumer product, iOS plus web plus API (2025)

- Designed, built and shipped an iOS app to the App Store, together with its TypeScript API and web front-end, **all three tiers single-handedly**.
- **Tuist modular architecture** with build configurations separated behind protocols so credentials never entered the repository, plus **Xcode Cloud CI**, dark mode and localisation. Service retired in 2026, source remains public.

Education

Master of Information Technology

Whitireia and WelTec, Wellington, New Zealand | July 2024 - October 2025

Bachelor of Engineering in Computer Science

University of Suwon, South Korea | March 2006 - February 2015