

SHOBHIT BANSAL

iOS Developer | BLE & Connected Hardware Specialist

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PROFESSIONAL SUMMARY

iOS Developer with 2 years of production experience engineering apps for global Fortune 500 brands including HP, Kodak, and Polaroid. Specialist in Bluetooth Low Energy (BLE) and External Accessory protocols, bridging mobile apps with hardware peripherals. Experienced in maintaining large-scale legacy Objective-C codebases while building modern Swift features. Proven ability to work across Native iOS and Flutter environments to deliver seamless hardware integrations. Successfully maintained 11 production apps serving millions of users globally.

TECHNICAL SKILLS

Languages: Swift, Objective-C, Dart (Flutter)

Core Frameworks: UIKit, CoreBluetooth, EAAccessory, Core Data, GCD/Concurrency

Hardware Integration: BLE Central Manager, Firmware Update Logic (OTA), Printer/Camera Communication Protocols

Architecture: MVC, MVVM, Singleton Pattern, Delegate Pattern

Tools: Xcode, Git, SourceTree, Asana, Postman, Kingfisher

PROFESSIONAL EXPERIENCE

iOS Developer | C+A Global India | Jan 2024 – Dec 2025

Deployed and maintained an ecosystem of 11 connected hardware apps for Kodak, HP, and Polaroid, serving millions of active users globally.

Connected Hardware & BLE Engineering:

- Led Native iOS development for Zink Flutter app, implementing Swift-based Method Channels to expose Bluetooth (BLE) scanning, pairing, and printing functionalities to Flutter UI layer
- Integrated 4 printer models from scratch using BLE and EAAccessory protocols, establishing communication flows at protocol level
- Coordinated directly with China hardware team for 2 printer integration projects, participating in protocol design, testing with dummy units, and firmware validation cycles
- Engineered robust firmware update (OTA) logic for external hardware, handling packet fragmentation, error recovery, and progress tracking to ensure reliable updates
- Optimized Single & Multi-Print queue systems, ensuring reliable data transmission to hardware without blocking the main app thread

Architecture & Legacy Modernization:

- Maintained and stabilized legacy Objective-C codebases for HP Sprocket and HP Panorama, resolving critical memory leaks and crashes to meet iOS 17+ compliance
- Architected custom Core Data synchronization engine to fetch, cache, and render hundreds of creative assets (stickers/frames) from APIs, enabling full offline functionality
- Implemented efficient image caching using Kingfisher and Core Data to reduce network calls and improve gallery scrolling performance

Feature Development:

- Built photo editing features including blur tool, pan/pinch gestures for image manipulation, text overlays with color customization, rotation/mirror effects, and sticker/frame application
- Integrated Copilot analytics and resolved App Store compliance issues related to permission flows and privacy requirements
- Fixed iOS 18 compatibility issues across all apps, including modal presentation requirements and UICollectionView API changes

iOS Trainee | CS Soft Solutions Pvt. Ltd. | July 2023 – Dec 2023

- Gained intensive hands-on training in Swift and UIKit fundamentals
- Built prototype modules using AutoLayout and MVC architecture to understand app lifecycle and memory management
- Developed employee database app implementing Core Data for persistent storage

KEY PROJECTS & APPS

Kodak & Polaroid Ecosystem *(Live on App Store)*

Apps: Kodak Smile, Smile Classic, STEP Prints, Polaroid Mint, Zip, Snaptouch, Pop

Tech Stack: Swift, Objective-C, BLE, Core Data, Core Graphics

Role: Full ownership of maintenance, new feature development, and hardware connectivity logic across all apps

HP Ecosystem *(Live on App Store)*

Apps: HP Sprocket, HP Panorama

Tech Stack: Objective-C, Swift, BLE, Core Data

Role: Maintained legacy Objective-C codebase, integrated new printer support, implemented Core Data asset caching

Zink Ecosystem *(Live on App Store - Hybrid)*

Apps: Zink Photo

Tech Stack: Flutter (UI), Swift (Native BLE Layer)

Role: Built critical bridge between Flutter UI and Native iOS Bluetooth APIs for printer discovery and communication

Forge Fitness *(Personal Project)*

Tech Stack: Flutter, Custom Logic Engine, Persistent Storage

Description: Designed and built a calisthenics fitness tracker using Flutter. Implemented workout tracking, diet logs, and data persistence using Drift database and Provider state management. Built custom logic for workout timers and progress visualization with charts

EDUCATION

Master of Computer Applications (MCA) | Lovely Professional University | Expected 2027

Mode: Online (Pursuing alongside full-time employment)

Bachelor of Computer Applications (BCA) | Swami Vivekanand Institute (SVIET) | 2021 – 2024