Abhishek Bansal

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Education

Institute of Engineering and Technology, Lucknow — B.Tech, Computer Science **2021 – 2025**

Summary

iOS engineer with 2+ years shipping consumer apps used in production. Built core features of Thine, an AI note taker you leave on all day that listens to what's around you and gives it back as notes and answers, across iPhone, Apple Watch, Live Activities, widgets and share extensions. Strong in Swift, SwiftUI, background audio and real-time sync.

Experience

Thine — iOS Engineer **Bengaluru · Jan 2025 – Present**

AI note taker you leave on all day: it captures what's said around you and tells you what matters. 300+ merged PRs, 40+ releases.

- Built the **Apple Watch app** and complications for one-tap recording, with recording state synced between Watch and iPhone.
- Built **Live Activities and Dynamic Island** for live recording and meeting mode, with start-from-calendar prompts.
- Owned the **background audio pipeline**: recorder state machine, watchdog, recovery after call interruptions, chunked uploads.
- Ran **on-device voice activity detection (VAD) with Core ML on the Apple Neural Engine** to detect speech in real time.
- Shipped **home screen widgets, a share extension and App Intents / Shortcuts** for capture from anywhere.
- Built real-time **chat over WebSockets** with attachments, kept alive in the background while answers stream.

Merlin AI — Flutter Developer **Bengaluru · Aug 2024 – Jan 2025**

- Shipped features across 4 production apps: Merlin AI, AI Note Taker, Bonkers AI and PDF AI.
- Built native **iOS widgets, share extensions and App Shortcuts** alongside the Flutter code.
- Built an AI image app from scratch with RevenueCat subscriptions and image-generation models.
- Reduced app launch time.

Google Summer of Code 2024 — Beacon **Remote · May – Aug 2024**

- Built real-time group location sharing with Flutter and a Node.js / GraphQL backend using subscriptions.
- Refactored the app to Clean Architecture with Cubit state management.

Open Source

Prism — Generative UI SDK for AI chat apps **Swift, Kotlin, TypeScript**

- Lets any AI model show **interactive native screens** inside a chat (forms, quizzes, charts) through one `show_screen` tool call.
- Wrote a **compiler** that turns the model's JSX into safe JavaScript with Babel, allowing only safe globals and blocking `eval`, `fetch` and prototype tricks.
- Runs AI-written code in a **locked sandbox worker** so a bad screen can't crash or slow down the host app.
- **Streams screens while the model is still writing**, so users see the UI build up live.
- Built a library of **39 UI parts** as native iOS and Android views, updated **over the air** without an App Store release.
- Built a **theme engine** that turns one brand colour into light and dark shades while keeping text readable.
- Shipped as a **SwiftPM XCFramework** (iOS 15+), an Android library on **Maven Central** and a compiler on **npm**, with demos for Flutter, Expo, Electron and web.
- Set up an **eval suite** that runs real model replies through the compiler to catch screens that fail.

Steady — Swift package for chat message lists **Swift, UIKit**

- Built a **custom UICollectionView layout** that loads older history **without the screen jumping**, keeping the visible message in place.
- Generic over any `Identifiable` model, with a **diffable data source** for in-place inserts, updates and deletes.
- Handles the hard chat cases: **paging older messages**, **keyboard-aware insets**, jump-to-bottom and **scroll position restore**.
- Supports variable row heights and spacing (including overlap), **context menus with custom previews** and send animations.
- **Swift 6 tooling, main-actor isolation**; example app, docs, 23 Swift Testing tests, 3 tagged releases.