Madhur Mehta

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Experience

- **Vel Labs** — Bengaluru, India
  Forward Deployed Engineer — Feb 2026 – Present
  - Core developer of **Sola**, an AI companion app on a single **Kotlin Multiplatform** and **Compose Multiplatform** codebase shipping to Android and iOS (Decompose, Koin, Ktor).
  - Owned the real-time **3D Unity companion** via **Unity as a Library**: built the KMP bridge module, a versioned message contract, thermal-aware frame rate and Sentry telemetry; removed a **3.5 s freeze** and raised fps from **21 to 29** on low-end devices.
  - Set up performance engineering with **Macrobenchmark**, **Baseline Profiles** and **Perfetto** KPI budgets, cutting cold-start time by **about 25% on average**.
  - Closed **22 production crash, ANR and hang issues** through **Sentry** root-cause analysis, moving SDK init and dependency injection off the main thread.
  - Built chat and **WebRTC** voice calls: paging, optimistic updates, swipe-to-reply, realtime reactions (**Ably**) and a shared-element photo viewer.
  - Shipped ringing reminder calls (Android **Telecom**), **FCM** push with deep links, **RevenueCat** and UPI payments, and funnel analytics.
- **Brick and Bolt** — Bengaluru, India
  Software Development Engineer - I (Android) — Nov 2024 – Jan 2026
  - Built a **Server-Driven UI** referral flow for the Customer and Professional Android apps, streamlining lead generation and conversion tracking.
  - Integrated the Google **Play Integrity API** to block unauthorized installs and rooted devices.
  - Built team management with role assignment in the contractor app, reducing manual coordination by about 25%.
  - Built **Server-Driven UI** components for the Customer app and a **Flutter** internal dashboard, enabling UI updates without app releases.

Projects

- **Pvot Phone & PvotLib** | *Kotlin, Jetpack Compose, Dagger/KSP* — GitHub
  - Moving an open-source AOSP dialer to **Jetpack Compose**: migrated 10 screens, in-call UI and 8 dialogs, removed 34k lines of dead code, and added caller screening and missed-call reminders.
  - Contributed about 35 components and a glass surface system (WCAG 4.5:1 contrast) to the **PvotLib** Compose design system.
- **Rocket: Mobile Performance Toolkit** | *Kotlin, Swift, Macrobenchmark, Perfetto* — Vel Labs (internal)
  - Built a tool that benchmarks Android and iOS builds on real devices, reporting **54 Android and 12 iOS KPIs** across 6 journeys against a baseline, driven by a YAML flow DSL.
  - Its analysis grew Baseline Profile coverage by **48.8%** and showed notification launches took 2.1 s, not 0.7 s.

Technical Skills

- **Languages:** Kotlin, Java, Swift, C#, Dart, C++
- **Frameworks:** Kotlin Multiplatform (KMP), Compose Multiplatform, Jetpack Compose, Decompose, Koin, Ktor, Coroutines/Flow, Unity as a Library (UaaL), Flutter, MVVM, Clean Architecture, Room, Retrofit
- **Tools:** Macrobenchmark, Baseline Profiles, Perfetto, Sentry, Firebase, GitHub Actions, detekt, Gradle, Xcode, Postman, Figma

Achievements

- **Smart India Hackathon 2023 Winner:** Won for problem statement 1286 — incentivization of legal service providers and client onboarding platform.
- **HackerzStreet 1.0 - IEEE, Manipal University Jaipur:** Secured **1st Runner-Up** in a national hackathon. Built Android and web-based e-commerce solutions for local vendors. Link

Education

- **Dayananda Sagar College of Engineering, Bangalore** — Karnataka, India
  Bachelor of Engineering in Electronics and Communication Engineering — 2020 – 2024