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Scaled Agile Certified (SAFe® 4)

SUMMARY

A **Staff Engineer** with 10 years of experience in Mobile App Development, I have a track record of leading, architecting and delivering Mobile Apps. My core expertise lies in high-performance, modern Android apps using **Kotlin**, **Jetpack Compose**, and **MVVM**. While my foundation is in Mobile, I have broadened my scope to encompass a **product-centric approach**, allowing me to build complete, full-stack solutions. I'm leveraging my skills in new domains, including cross-platform development with **React Native** and backend services using **Spring Boot** & **NestJS** and exploring **AI** capabilities on Mobile, specially on-device models. I actively contribute to the tech community by sharing insights on Stack Overflow and Github.

PROFESSIONAL SKILLS

Languages: Kotlin, Java, SQL, JS (Basic)

Architecture & Design: MVVM, Modularization, Object-Oriented Design, REST APIs, GraphQL

AI/ML: HuggingFace models using llama.cpp in Mobile, Google AI Edge, Function Calling, Firebase ML Kit.

Tools & Methodologies: Git, Android Studio, VS Code, IntelliJ Idea, SAFe Agile, Jira, CircleCI, Docker.

Native Android Development:

-   Jetpack Components: Compose, WorkManager, Nav Graph, Paging.
-   Kotlin Coroutines & Flows, KMP & CMP (Basic).
-   DI frameworks: Hilt, Dagger (for older Java projects).
-   Persistence: Room DB, DataStore, Protos.
-   CameraX, Media3 (ExoPlayer), BLE, WIFI, Android TV.

Libraries & APIs:

-   Firebase: Auth, FCM, Crashlytics, Firestore, Dynamic Links, Remote Config, App Distribution.
-   Google AdMob, Facebook Ads, Google Maps, MapBox SDK.
-   Payment Gateways: Stripe, RazorPay, CCAvenue, PayPal.
-   UI: Glide, Coil, Lottie, MPChart.
-   FFMpeg for editing, RTMP streaming with Agora, WebRTC with socket.io.

Cross Platform (React Native):

-   Core Concepts: JSX, Components, States & Lifecycle Hooks.
-   Navigation: React Navigation (Stack, Tab Navigators).
-   API Communication: Fetching data from REST APIs using Fetch API or Axios.
-   Native Interaction: Understanding of the bridge and linking native modules.

Backend (Spring Boot, NestJS):

-   Currently exploring Backend & cloud concepts, with small contributions in recent projects.
-   REST APIs: Creating CRUD endpoints using SpringBoot & NestJS.
-   Data Persistence: PostgreSQL DB connection using Spring Data JPA & TypeORM in NestJS.
-   Microservices: Event-driven frameworks - Kafka, Docker containerisation.

WORK EXPERIENCE

- **NAGARRO Munich, Germany** (Remote)| *Staff Engineer (Nov 2021 - Present)*

  - Led a team of 6 Mobile Engineers in the development of an enterprise-grade IoT application for a global leader in refrigeration and security.
  - Architected and led the end-to-end development of the *Connected Safety+* app from scratch, resulting in a successful on-time public launch & deployment at key client sites like Universal Studios, Singapore.
  - Drove engineering excellence by improving team velocity by 25% through establishing clear architectural guidelines, conducting regular code reviews, and mentoring junior developers.
  - Cross-functional collaboration with backend teams to design and develop Kotlin-based microservices using Spring Boot, significantly enhancing API performance and reliability.
  - R&D initiatives by creating POCs for on-device generative AI (llama.cpp) for photo summarization and an indoor navigation system utilizing BLE beacons.
  - Delivered a high-quality user experience for the Punjab Kesari, Jagbani, and Navodaya Times news apps by designing a complex, scalable architecture and ensuring 99.9% crash-free stability on Crashlytics.

  Projects:

  - **Connected Safety+:** An enterprise-grade IoT application for real-time monitoring and control of devices like fire alarms & smoke detectors deployed in large public venues (e.g., Doha Airport).
    Client : Carrier (Walter Kidde Fire & Security)

  - **A News App:** A suite of multi-language news applications with over 2M+ combined downloads, ensuring high stability and a complex, scalable architecture.
    Client : A Major News media provider in India

- **SHURE Hyderabad, India**| *Software Engineer - II (Jan 2020 - Oct 2021)*

  - Drove the strategic modernization of a legacy codebase, successfully migrating the whole Android application from Java to Kotlin, which enhanced maintainability and accelerated future development.
  - Led the first release of the app on the Google Play Store, driving adoption among professional audio engineers and technicians.
  - Added support for new Axient Digital Wireless Systems and legacy systems, integrating them seamlessly into IoT ecosystems.
  - Followed SAFe Agile, tri-monthly Program Iterations and preparing technical demos for stakeholders, ensuring alignment with product goals.

  Projects:

  - **ShurePlus Channels:** Project involved monitoring and controlling of audio devices like changing RF, audio level etc. of transmitters/receivers in a single mobile application from leading brands (Sennheiser, Shure, Harman) via Wi-Fi and Ethernet.

- **IBM** Hyderabad, India | *Senior Android Developer (June 2019 - Jan 2020)*

  - Worked on major Banking applications with millions of DAU.
  - Acted as the module lead for the application's Analytics module, ensuring separation of concerns and a robust data collection architecture within a large-scale, enterprise environment.
  - Maintained high code quality and security standards, resolving daily reported bugs and adhering to OWASP Top 10 security principles for a major mobile banking platform.
  - Collaborated effectively within a 20-member Agile team, utilizing a modular architecture with reusable UI components and enforcing strict code review processes to maintain consistency.
  - Participated in the full-cycle development and maintenance of two key financial applications, ensuring security and performance for a large user base.

  Projects:

  - **DigiBank by DBS:** Project involved providing a platform for bank customers to use basic mobile banking features and doing transactions securely over the internet.
    Client : DBS Singapore
  - **iMobile:** Full fledged mobile banking application for ICICI bank account holder customers.
    Client : ICICI Bank

- **Enact e-Services** Chandigarh, India| *Android Developer (Aug 2016 - May 2019)*

  - Developed and delivered more than 10 Android applications from scratch, setting up architecture and base classes for each project.
  - Specialized in building applications with complex multimedia and connectivity features, using libraries like FFmpeg and ExoPlayer for video editing and streaming, and BLE for device communication.
  - Built and launched an application for a portable camera, handling video transfers via Wi-Fi & Bluetooth, and implementing advanced features like video editing and AR face mapping.
  - Engineered a scalable application architecture for a Gym Management system, creating different builds for clients, trainers, and admins, and integrating payment modules via PayPal.
  - Developed native Android TV and tablet interfaces for an IPTV application, ensuring a smooth user experience and remote control compatibility.
  - Worked on a wide range of projects including a Vehicle Appraisal app with Firebase and FCM, demonstrating versatility and a strong command of core Android technologies.

  Projects:

  - **Opkix Studio:** An application for a portable camera, enabling video transfer, real-time control via Wi-Fi & Bluetooth, and on-device video editing.
  - **Yum:** This app is all about making food with interactive UI. Get Step-By-Step instructions on how to cook every single recipe along with video.
  - **Gym & Trainers Management Application:** A multi-tenant application for a US-based gym chain, handling client management, progress tracking, and payments.
  - **IPTV Application:** An Android app for mobile, tablet, and TV, designed for secure content streaming and subscription management.
  - **Vehicle Trade App:** A complete dealership solution for vehicle evaluation, inventory management, and customer engagement.