

Mahivardhan Singh Panwar

TECHNICAL LEAD - ANDROID / GENERATIVE AI

+91 7742658282 | singhmahivardhan74@gmail.com | Bengaluru, Karnataka | LinkedIn

PROFESSIONAL SUMMARY

Results-driven Technical Lead with **10+ years** of experience architecting scalable **Android applications/SDK** and **2+ years** pioneering **Generative AI and Backend solutions**. Proven track record in designing high-performance SDKs using Clean Architecture, building enterprise-grade LLM integration platforms, and leading cross-functional teams across diverse domains including Telecom, US Healthcare, FinTech, and E-commerce. Expertise in transforming complex AI/ML concepts into production-ready microservices that drive business value.

CORE COMPETENCIES

Android Development

Kotlin Jetpack Compose Clean Architecture
MVVM Coroutines/Flow Dagger/Hilt

Android SDK and Libraries

Room Database Retrofit LiveData RxJava
SDK Development Mockito

Generative AI and LLM

Azure OpenAI OpenAI API Prompt Engineering
LLM Integration

Backend and DevOps

Python FastAPI REST APIs Redis Docker
Kubernetes

PROFESSIONAL EXPERIENCE

Technical Lead - Rakuten

May 2020 - Present
Bengaluru, India

Rakuten AI for Link - Voice AI SDK Android

[View Project](#)

Architected an intelligent AI agent SDK within Rakuten Link mobile app, leveraging LLM capabilities to deliver hyper-personalized recommendations and proactive issue resolution for millions of users.

- Designed Voice AI SDK** providing chat interface for Japanese users with speech-to-text capabilities using Nuance DLGaaS (Dialog as a Service)
- Integrated with Nuance Mix for NLU, enabling natural language understanding across 40+ intent categories
- Implemented context-aware personalization engine analyzing user behavior patterns for tailored mobile experiences
- Built modular SDK architecture following Clean Architecture principles for easy integration into Link app

Tech: Kotlin, Nuance DLGaaS, Clean Architecture, MVVM, Coroutines, Hilt, Retrofit

My Rakuten Mobile - eCare SDK Android

[View Project](#)

Developed membership chatbot SDK enabling Rakuten Mobile subscribers to access billing statements, application status, and personalized support within the My Rakuten Mobile app.

- Implemented user experience scenarios with context-aware responses using Clean Architecture
- Integrated secure authentication flow for subscriber data access
- Built reusable SDK components for seamless integration across Rakuten Mobile apps

Tech: Kotlin, Retrofit, Coroutines, Clean Architecture, MVVM, Hilt, Room Database

CXD Personalization Engine Python Backend

Built a high-performance personalization microservice delivering real-time user profiling and intelligent recommendations for RMAA chatbot widget across Rakuten Mobile platform.

- **Architected backend with FastAPI** serving 100K+ daily decisions with less than 100ms latency
- Implemented **DoCoMo network detection** algorithm for intelligent carrier-based personalization
- Designed **rule evaluation engine** processing 15+ user profile enrichment facts for sophisticated targeting
- Built **Redis-based session management** with secure envelope passing between widget and chat backend
- Integrated with Profile Enrichment API for real-time user behavior analysis
- Implemented BigQuery analytics pipeline for comprehensive decision tracking and A/B testing

Tech: Python, FastAPI, Redis, BigQuery, Pydantic, Docker, Kubernetes

LLM Common Layer - Enterprise AI Platform Python Backend

Designed and developed a unified middleware platform enabling seamless LLM integration across multiple business units, eliminating code duplication and accelerating AI adoption.

- **Built multi-provider LLM abstraction layer** supporting Azure OpenAI and OpenAI APIs through a single unified interface
- Developed **self-service onboarding API** allowing teams to register API keys, models, business unit names, and custom prompts
- Implemented **Firestore-based configuration management** storing provider credentials, model mappings, and prompt templates
- **Reduced integration time from weeks to hours** - teams simply call the microservice with model name and BU identifier
- Created dynamic prompt injection system allowing teams to manage prompts via API without code changes
- Enabled secure multi-tenancy with isolated credential storage and audit logging per business unit

Tech: Python, FastAPI, Firestore, Azure OpenAI, OpenAI API, Docker

Senior Software Engineer - NextGen Healthcare

Apr 2018 - Apr 2020
Bengaluru, India

NextGen Mobile Solution (Entrada) Android

[View Project](#)

Healthcare application accelerating clinical documentation with AI-powered voice-to-text transcription for ambulatory and acute EHR systems.

- Designed application architecture enabling real-time audio-to-text conversion using Nvoq service

- Led code reviews and mentored team of 4 developers on Android best practices
- Coordinated with cross-functional teams (Design, Backend, QA) for product delivery

Tech: Android, Kotlin, RxJava, Retrofit, Room Database, MVVM

Senior Android Developer - MasterCard (PRI India Pvt Ltd)

May 2017 - Apr 2018
Vadodara, India

CitiPay - Mobile Wallet and NFC Payments (US) Android

Enterprise mobile wallet enabling cloud-based NFC payments for Citibank cardholders with secure tokenization.

- Architected payment flow with HCE (Host Card Emulation) for contactless transactions
- Implemented card provisioning and in-app checkout functionality
- Ensured PCI-DSS compliance in payment processing module

Tech: Android, HCE, NFC, Retrofit, Dagger, RxJava

Android Developer - Innovify

Oct 2013 - Apr 2017
Ahmedabad, India

OneWayCab Android

India's leading inter-city taxi booking platform with real-time driver tracking and seamless booking experience.

Tech: Android, Google Maps API, Retrofit, SQLite

Instantt Android

Local commerce app with Stripe wallet integration, location-based offers, and in-app payments.

Tech: Android, Stripe SDK, Google Places API, Retrofit

Bluetooth Remote Control Android

Cross-device control app for selfie capture and media playback via Bluetooth connectivity.

Tech: Android, Bluetooth API, Android Media APIs

KEY ACHIEVEMENTS

- * Awarded prestigious **"E" certification** under Rakuten E-Rank Program (Jun 2022 - Dec 2022) - Top performer recognition
- * Built LLM Common Layer reducing AI integration time from **weeks to hours** for 5+ business units
- * Designed personalization engine processing **100K+ daily decisions** with sub-100ms latency

EDUCATION

Bachelor of Technology - Information Technology

Rajasthan Technical University, Kota