

Abhishek Kumar

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PROFESSIONAL SUMMARY | [Portfolio](#) | [GitHub](#) | [Linkedin](#) | [Endorsements](#)

Software Engineer with 7 years of experience in engineering robust **full-stack architectures, e-commerce, high-scale mobile systems, and AI-integrated systems**. Experience in **MERN and PERN stacks**, with a strong focus on **clean, scalable, modular monorepo architecture**. Architected production-grade **0-to-1 full-stack platforms**, successfully launching [Rudraloka](#) and [HaraShakam](#) utilizing **React.js, TypeScript, JavaScript, Vite.js, Node.js, Express, Python, REST APIs, gRPC**. Database, cloud infrastructure, and CDN experience spanning across **AWS, Cloudflare, DigitalOcean, MongoDB, PostgreSQL/Supabase, Firebase, serverless Edge Functions, and webhooks**. **Web Security** expertise includes **RLS authorization, CORS, HMAC CSRF, JWT authentication, secure cookies, audit logging, idempotency, secrets management, rate limiting and XSS**.

Complimenting mobile engineering expertise includes **Android/Kotlin, iOS/SwiftUI, Flutter/Dart, React Native**. Expertise in **Kotlin, Java, Coroutines, Flow, Jetpack Compose, Hilt/Dagger, multithreading, concurrency and asynchronous reactive programming**. Skilled in diagnosing UI jank, memory leaks, and performance bottlenecks using **Android Studio Profiler, ADB, Crashlytics and Logcat**.

Hands-on **DevOps** experience in designing **CI/CD pipelines, GitHub Actions, GitLab** and **Docker** for automated production deployment. **Hands-on** expertise with **Advanced RAG systems, MCP servers, multi-agent orchestration**, LLM-assisted development using **Claude Code/Codex/Cursor**-style workflows.

EXPERIENCE

Full Stack Engineer

[Rudraloka](#) [D2C Spiritual Products Platform]

December 2025—Present, Dehradun, Uttarakhand

- Founded and **engineered Rudraloka** from **concept to production**, owning **system architecture, full-stack development, security, testing, CI/CD, deployment, and operations**, while establishing clean-code, code-review, QA, and technical-documentation standards.
- **Architected a Modular Monorepo** using **React.js, Vite, Node.js, Express, Supabase, PostgreSQL, gRPC, Authentication, Storage, REST APIs, Edge Functions, HTML, Tailwind CSS, and Radix UI design system**.
- Built a secure **Rudraloka admin panel, dashboard** for managing products, categories, inventory, orders, promotions, gift cards, content, customers, and operational workflows, with **role-based access**.
- Implemented **payment workflows, transactional event logs, 31-table data schema model, 59 Row-Level Security policies, and 13 serverless Edge Functions**.
- Implemented **event-driven backend workflows** for **order lifecycle automation** including **webhooks, automated order processing, authentication flows, transactional email, webhook verification, admin actions, audit logs, and failure-safe state management** across checkout and fulfillment.
- Designed **provider-agnostic payment orchestration** with Razorpay/COD capability discovery, payment sessions, webhook-based state transitions, idempotent order updates, customer success flows, and admin operational workflows.
- Designed provider-agnostic payment orchestration for **Razorpay, Cash on Delivery, and controlled UPI payments**, including payment sessions, server-authoritative pricing, **HMAC-verified webhooks, idempotent state transitions, reconciliation, failure recovery, and pending-verification workflows**.
- Built **Python based DevOps automation scripts, Git, GitHub, and GitHub Actions CI/CD pipelines, git based workflows** for linting, testing, build validation, security scans, artifact generation, deployment workflows, **release gates, health checks, and rollback-ready delivery** while keeping **security priority design**.
- Engineered secure application architecture using **JWT based Authentication, Authorization, RBAC, RLS, CORS/CSRF protection, server-side validation, secure sessions, secrets management, HMAC-verified webhooks, audit logging, idempotency, and OWASP-aligned practices**.

- Architected the planned **native Android application** using **Kotlin and Jetpack Compose**, applying **modular Clean Architecture, MVVM, offline-first design, repositories, domain use cases, DTOs, Room, Hilt dependency injection, and Jetpack Navigation**, with **Coroutines, Flow, StateFlow, and SharedFlow** for reactive state management.
- Designed mobile integration patterns using **Retrofit, OkHttp, REST APIs, interceptors, token refresh, retry/backoff, Paging 3, secure storage, Room caching, WorkManager, deep links, analytics, FCM, and Firebase Crashlytics**, while maintaining provider-independent boundaries for Supabase and Firebase services.
- Defined native Android integration, testing, performance, and release workflows using **Kotlin/Java, Jetpack libraries, payment SDK adapters, JUnit, Mockito, Compose UI testing, Android Studio Profiler, Firebase App Distribution, and Google Play Store deployment**.
- Improved **performance, accessibility, resilience, and SEO/GEO** through responsive UI, prerendering, structured data, media optimization, runtime monitoring, and automated sitemaps and merchant feeds.
- Designed and built a 14 layered **security-first Claude Code/Codex [AI-assisted engineering plugin](#)** by applying **context engineering, MCP-style skills, structured handoffs, decision logs, validation reports, self-review gates, and agent traces to reduce context loss, improve task relevance, and lower hallucination risk across long-running engineering phases**.
- Implemented **multi-agent orchestration** with **vectorless RAG via deterministic project/runbook retrieval, bounded tool access, no-secret logging, sanitized diagnostics, approval gates, and human-in-the-loop relay execution** to support admin-safe decision workflows while preserving **correctness, auditability, and security**.
- Designed a **Claude/Codex compatible multi-agent engineering system** and a 4 layer **memory engineering** architecture through shared **.ai project memory, semantic memory files, project knowledge base, phase history, architecture maps, payment models, deployment models, CI/CD models, forbidden-action rules, and release-readiness checklists**.
- Built **harness engineering workflows** for AI-assisted development, including **agent-mode validation, phase-completion review harnesses, CI/CD review checklists, compliance guardrails, security-review gates, payment-webhook review flows, RLS review flows, and release-readiness validation - fixing model drift**.

Software Engineer II (R&D)

[HERE Technologies](#)

September 2021—December 2025, Mumbai, Maharashtra (4.4 years)

- **Engineered** scalable **architecture** patterns and modular system designs for **150+ open-source cross-platform [SDK applications](#)** across **Android (Kotlin/Java), iOS (SwiftUI/Objective-C), and Flutter**, applying **Clean Architecture, MVVM, reusable components, and clean-code principles** to maintain **cross-platform feature parity** and scalability.
- Built and shipped **AI-integrated** mobile features across **Android, iOS, and Flutter**, integrating backend services through **RESTful APIs** to showcase advanced automotive and location-intelligence capabilities and contributing to a **70% increase in developer adoption of the HERE SDK**.
- **Migrated and modernized large legacy codebases** example apps from **Java to Kotlin, utilizing coroutines, flows and jetpack compose** and **Objective-C to SwiftUI**, implementing **MVVM, MVC, Clean Architecture and mobile design patterns like Builder, Dependency Injection, Observer, Factory** to improve system maintainability and increased re-usability by developers.
- Implemented **responsive, lifecycle-aware mobile workflows, asynchronous Android data flows** using **Kotlin Coroutines/Flow** for API-driven SDK examples, improving responsiveness, cancellation handling, and reliability in network-dependent mobile flows.
- Designed **[reusable UI component libraries](#)** and **solutions architecture patterns** that **reduced SDK integration friction** and accelerated **customer adoption** with positive developer feedback.
- Automated **CI/CD workflow** using **Python, Gerrit, Jenkins** and **GitLab CI**, including **build validation, release checks, changelog generation, documentation publishing, and deployment workflows**, reducing manual publication effort by approximately **50%**.
- Maintained and enhanced the **HERE SDK [documentation](#) platform**, authoring high-quality **[API references, developer guides, technical tutorials, and integration content](#)** to improve documentation accuracy, developer onboarding, and SDK adoption.

- **Spearheaded** and **led** the **biweekly HERE SDK release cycle** in an **Agile/Scrum environment**, coordinating with global cross functional engineering, QA, DevOps, product, and documentation teams through **code reviews, release validation, clear communication and smoke testing** to deliver stable releases to the global developer ecosystem.
- Managed sprint planning, backlog prioritization, defect tracking, release documentation, code reviews, validation, and smoke testing using **Jira, Confluence, Git, GitLab, Jenkins, and Gerrit**.
- **Led technical training** to internal teams and **created onboarding workflows** and **AI-assisted development workflows** for teams, while **improving documentation standards** using **docs as a code** with **Jazzy, DartDoc**, and **JavaDoc**, **reducing onboarding time by 80% and faster SDK integration by 50%**.

Full Stack Developer

[HaraShakam](#) [Multi-Store E-commerce App]

May 2020—Sep 2021, Jharkhand (1 year 5 months)

- **Engineered** a multi-store B2C e-commerce mobile application using **Flutter, Dart** and **Node.js**, owning the end-to-end **system architecture, software development life cycle (SDLC), backend development, backend integration** and **production deployment**, achieving 2,000+ installs on **Google Play Store** and 500+ active users with a focus on **high-availability** and **regional scalability**.
- Implemented **advanced Flutter state management architecture** using **Redux, Provider, RxDart, reactive programming, and asynchronous event handling**, ensuring **predictable data flow, reusable components, efficient UI rendering**, and consistent application state across complex e-commerce workflows.
- Designed a **headless CMS-driven backend microservice architecture** using **Node.js, MongoDB Realm**, implementing automated **middleware**, and event-driven triggers for real-time inventory, product content, and order data management.
- Configured and integrated **PostgreSQL** and **MongoDB databases** with **backend services**, designing reliable data-access workflows, operational reporting pipelines, and **MongoDB Charts dashboards** for business and application insights.
- **Architected** and **deployed** production-grade **Node.js backend infrastructure** on an **Ubuntu** based **DigitalOcean VPS**, **configuring** a **hardened Nginx reverse proxy**, **MongoDB** connectivity, environment management, and secure deployment workflows.
- Integrated **RESTful APIs** using **Dio and HTTP**, implementing asynchronous data flows, **JSON serialization and deserialization**, request validation, **robust exception handling**, retry-safe, and resilient user-facing error states.
- Developed native **Android integrations using Java**, including in-app updates, background operations, local persistence, platform-specific functionality, and lifecycle-aware processing
- Implemented **Firebase Authentication, Cloud Firestore, and Firebase Cloud Messaging (FCM)** to support secure user sign-in, real-time application data synchronization, and targeted push notifications for order updates, promotions, and customer engagement.
- Integrated secure **payment gateways** using **Razorpay and Stripe**, **CRM based customer support modules, transactional emails, in-app notifications**, and **Firebase Crashlytics** for proactive crash monitoring, real-time issue triage, and improved production stability
- Designed and maintained **GitHub-based CI/CD pipelines** to automate build validation, testing, environment configuration, and deployment of Flutter and **Node.js backend services** to an **Ubuntu-based DigitalOcean VPS hosting**, alongside separate **Google Play Store** deployment pipeline for the front-end Flutter app.
- Optimized **Flutter mobile application** performance using **periodic performance profiling, tuning, best refactoring practices, ADB and Logcat debugging, Android Studio Profiler, and Flutter DevTools** to reduce UI jank and improve **responsiveness**.
- Engineered **backend event-driven notification workflows** using **JavaScript, AJAX**, and **HTML DOM manipulation** to automate **registration messages, password resets, order confirmations, and order-status updates across the complete order-processing lifecycle**.

Android Developer

Personal Projects [Weather app and COVID-19 tracking app]

Jul 2019—Jul 2020, Jharkhand (1 year)

- **GoCorona Android app**: Built a location-aware Android application **delivering real-time COVID-19 data** through **REST APIs, Retrofit, Volley, and JSON parsing**.
- Developed modular, responsive features using **Fragments, Intents, Activity lifecycle management, caching, Material Design, and multi-device layouts**.
- Integrated **Firebase Crashlytics, MPAndroidChart, Glide, Picasso, and Google Play Services** to improve stability, visualization, and application performance.
- **Weather Now Android app**: Developed a real-time Android weather application with forecasts, storm tracking, radar, and 3D Earth visualization using **REST APIs and dynamic data rendering**.
- Applied **MVVM architecture** and built modular interfaces using **Fragments, RecyclerView, CardView, WebView, Navigation Drawer, and Material Design**.
- Engineered auto-updating home-screen widgets using **Services, home screen Widgets, Broadcast Receivers, scheduled alarms, SharedPreferences, multithreading, and background processing**

EDUCATION

- B.Tech in Computer Science & Engineering - BIT Sindri (2016 – 2020) - CGPA: 7.01 / 10
- Senior Secondary School (XII) - D.A.V. Public School, Bistupur (CBSE, 2015) – 83.4%
- Secondary School (X) - D.A.V. Public School, Bistupur (CBSE, 2012) – 9.4 CGPA

SKILLS

Programming Languages: Java, Kotlin, Swift, Dart, Python, C/C++, JavaScript, Typescript

Architecture: MVVM, MVC, System Design, Clean Architecture, SOLID Principles, Modular Architecture, Microservices Architecture, SPA

Mobile Platforms: Android (Kotlin/Java), iOS (Swift/SwiftUI), Flutter (Dart), Cross-Platform Architecture

Mobile Specialities: SDK Architecture, SwiftUI, Jetpack Compose UI, Android Auto, CarPlay, Concurrency

Full-Stack & Web: Node.js, React.js, React Native, Vite.js, JavaScript, TypeScript, HTML5, Tailwind CSS, Microservices

Data & Backend Platforms: PostgreSQL, MongoDB, RESTful APIs, Offline-first Design, Headless CMS

DevOps tools: Git, GitHub, GitLab, Github Actions, Jenkins, Docker, Jira, Agile / Scrum, CI/CD Pipelines, DigitalOcean, Cloudflare, AWS, Azure, GCP, GraphQL

AI Engineering & Agentic Systems: LLM Integration, RAG, Vectorless RAG, MCP-style Tools, MCP server, Multi-Agent Orchestration, Prompt Engineering, Context Engineering, Memory Engineering, Harness

Engineering, Loop Engineering, Agent Traces, Retrieval Evals, Model Drift Checks, Human-in-the-Loop AI

Workflows, Guardrails, pgvector, Chunking, Embeddings, Vector Databases, Semantic Search, Full-Text Search

AI Tools: Claude Code, Codex, Cursor, GitHub Copilot, OpenAI API, Anthropic Claude, Gemini