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hello@dhruvaldhameliya.com Problem Solver • Analytical Thinker • Innovator • Quick Learner • Mentor

Dhruval Dhameliya

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Summary: Senior Android Engineer with 5+ years building large-scale, high-performance Android applications serving hundreds of millions of users. Currently at Meta engineering complex client systems for Instagram Reels, including feature delivery pipelines, experimentation infrastructure, and cross-surface platform architecture. Deep expertise in Kotlin, Jetpack, MVVM, and performance optimization across diverse Android device ecosystems. Proven ability to collaborate cross-functionally and ship impactful features with a strong focus on code quality, reliability, and user experience.

PROFESSIONAL EXPERIENCE

Software Engineer, Android, Monetization Client Platform (Reels), Meta(Instagram), CA

March 2025 — Present

Feature Engineering & Delivery:

- Engineered end-to-end Android features for Instagram Reels serving hundreds of millions of daily active users, owning full development lifecycle from design through production rollout.
- Built context-aware delivery systems with complex state management across user journey states (scroll, pause, resume, background), ensuring correct behavior and edge case handling at massive scale.
- Designed non-disruptive, seamlessly integrated UI components that adapt to content context and user engagement patterns, maintaining consistent 60fps performance across millions of daily sessions.
- Architected shared platform components reused across multiple content surfaces (Reels, Stories, Feed), establishing scalable patterns and reducing duplication across feature teams.

Experimentation & Scalable Infrastructure:

- Engineered high-throughput experimentation infrastructure supporting concurrent A/B tests across diverse user cohorts with zero performance degradation, enabling rapid product iteration.
- Implemented multi-stage rollout framework with feature flagging, metrics monitoring, and automated alerting, enabling safe and confident deployments at scale.
- Optimized rendering and delivery pipelines for a diverse Android device ecosystem (phones, tablets, varying screen sizes) ensuring consistent quality from flagship to budget hardware.
- Partnered with Product, Design, and Data Science to define success metrics, shaping product decisions through data-driven insights.

Technical Excellence :

- Delivered high-impact features while systematically improving reliability, authored comprehensive unit, integration, and UI test suites, reducing production incidents.
- Wrote clean, performant Kotlin code optimized for range of hardware capabilities, with particular attention to memory management and battery efficiency.
- Led code reviews and mentored peers, raising engineering standards and fostering knowledge sharing across the team.

Android Developer, NJIT, Newark, NJ

Jan, 2023 — May, 2024

- Built scalable Android features using Kotlin, MVVM, and Jetpack components with clean separation of concerns and comprehensive unit test coverage.
- Optimized API integration layer through strategic caching, GraphQL query optimization, and coroutine-based async patterns, improving backend connectivity and response performance.
- Championed accessibility-first development, achieving WCAG 2.1 AA compliance across all UI surfaces with screen reader optimization and dynamic type support.
- Established CI/CD best practices with automated release pipelines and JUnit/Espresso test gates, significantly reducing release cycle time.

Senior Mobile Developer (Android), KG Krunch Solution, Surat, India

Dec, 2017 — Jun, 2022

- Spearheaded architectural modernization migrating legacy codebases to MVVM with Dependency Injection (Dagger), significantly improving testability and reducing technical debt.
- Designed scalable media framework leveraging ExoPlayer and AWS S3 for high-quality VoD delivery, supporting adaptive bitrate streaming and optimized buffer performance.

- Improved application stability through systematic debugging, lifecycle management refinement, and proactive crash monitoring, achieving consistent crash-free session improvements.
- Mentored team of 4 junior developers, establishing code review standards, architectural guidelines, and knowledge-sharing practices that measurably improved team velocity.
- Integrated 15+ third-party SDKs including ad networks and analytics platforms, establishing robust abstraction layers for long-term maintainability.

CORE COMPETENCIES

Programming/Scripting Languages: Kotlin, Java, C++, Kotlin Multiplatform

Android & Mobile: Android SDK, Jetpack Compose, Coroutines, GraphQL, REST APIs, gRPC, A/B Testing, Experimentation Frameworks, Coroutines, Flow, Live Data, WebRTC, ExoPlayer, Glide/Coil, State Machines

Performance & Quality: Memory Optimization, Frame Rate Profiling, ANR/Crash Analysis, Unit, Integration & UI Testing, ProGuard

Architecture & Infrastructure: MVVM, Clean Architecture, Dependency Injection (Dagger, Koin), Fault-tolerant Systems, Data-intensive Applications, CI/CD, Jenkins, Fastlane, Docker, JUnit, Espresso, Mockito

Other: UI component development, Algorithm Design, Data Structure, Data Modeling, Figma, Adobe XD

FEATURED PROJECTS

Context-Aware Ad Delivery System, Instagram Reels at Meta

- Built intelligent ad delivery system that adapts to user content consumption patterns and creator preferences, enabling sustainable monetization without disrupting immersive video experiences.
 - Architected state machine managing ad eligibility across different user journey states (scroll, pause, resume, background) ensuring correct delivery timing.
 - Implemented multi-stage experimentation framework validating format changes through controlled rollouts with comprehensive success metrics.
 - Delivered measurable monetization improvements while maintaining high user satisfaction and content creator earnings.

YdPlayer, Open Source Android Media Library <https://github.com/dcdhameliya/YdPlayer>

- Built comprehensive playback framework featuring customizable controls, playlist management, mini-player mode, and gesture-based interactions.
- Engineered dual-pane tablet layout with adaptive UI responding to screen size, orientation, and density, licensed under [GNU GPL v3.0](#)

CodeView, Open Source Code Presentation Library <https://github.com/dcdhameliya/CodeView>

- Created syntax highlighting engine supporting 15+ programming languages with customizable color schemes and collapsible views.
- Implemented interactive snippet editing with drag-and-drop sharing, [MIT licensed](#) with active developer community adoption.

EDUCATION

Master of Science, Computer Science, New Jersey Institute of Technology, GPA: 3.4/4.00

Sept 2022 — May 2024

Bachelor of Engineering, Computer Engineering, Gujarat Technological University, GPA: 8.34/10.00

Aug 2017 — June 2020

Diploma in Engineering, Computer Engineering, Gujarat Technological University, GPA: 9.42/10.00

Aug 2014 — June 2017