

HUOT LYSOKHENG

Staff Mobile Architect • Full-Stack Tech Lead • FinTech & WebRTC Specialist

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📁 github.com/lysokheng (550+ Repos) 🔗 LinkedIn

EXECUTIVE SUMMARY

Staff Mobile Architect, Full-Stack Tech Lead, and published Flutter package author (**chat_ui_flex** on pub.dev) with 4+ years of hands-on leadership delivering cross-platform mobile ecosystems, low-latency real-time video/audio engines (**Mediasoup WebRTC SFU**), and enterprise FinTech payment rails (**National Bakong KHQR**). Directed mobile architecture across 5 modular sub-applications for GateKhmer.ai, unblocked critical App Store / Google Play guideline rejections, and architected cloud backends handling high-throughput production traffic. Proven track record establishing TDD quality gates, CI/CD automated release governance, and zero-defect production maintenance SLAs.

TECHNICAL ARSENAL & CORE COMPETENCIES

Mobile Engineering:	Flutter & Dart (pub.dev Author), iOS (Swift), Android (Kotlin), Clean Architecture, BLoC, Riverpod, Offline-First (SQLite, Drift), Method Channels, Custom Canvas DRM Painters, Fastlane, Flutter Web/Desktop.
Real-Time & FinTech:	Mediasoup WebRTC SFU (<45ms P95 latency), Socket.io, Bakong KHQR Rails (EMVCo TLV, CRC16, HMAC-SHA256, BullMQ idempotency), Dynamic Video DRM Watermarking, Stripe, Push Notifications (APNs/FCM).
Backend & Cloud:	Node.js, TypeScript, Laravel / PHP, PostgreSQL, Prisma ORM, Redis Pub/Sub, Docker & Compose, DigitalOcean VPS, GCP, Nginx Reverse Proxy, RESTful APIs, WebSockets, BullMQ background workers.
Store Ops & Leadership:	App Store Connect & Google Play Console Governance, Privacy Manifests (PrivacyInfo.xcprivacy), Target SDK 35 upgrades, Guideline 5.1.1/4.2 Rejection Triage, Technical ADRs, Code Review Stewardship.

PROFESSIONAL EXPERIENCE

Mobile Team Lead • Codingate Technology	March 2025 – Present Phnom Penh, Cambodia
Enterprise Mobile Architecture: Lead cross-platform architecture for GateKhmer.ai spanning 5 modular sub-applications (GateExperts, GateConnect, GateDone, GateFeeds, GateMinds) across iOS, Android, macOS, Windows, and Web using Flutter and Clean Architecture. WebRTC SFU Infrastructure: Engineered self-hosted Mediasoup WebRTC SFU streaming cluster with selective packet routing, cutting media latency by 42% (sub-180ms) and slashing third-party SaaS streaming overhead by over \$38,000/year across 25,000+ monthly active users. Commercial App Maintenance & Store Compliance: Designated repository Maintainer across 3 mission-critical commercial client apps (Damdoh, Franando, and MK Kido Mobile), eliminating recurring crash regressions, achieving 99.96% crash-free sessions, and delivering mandatory Google Target API 34/35 & Apple Privacy Manifest compliance updates with 0 launch downtime. Mobile AI Chat Interface: Architected and integrated intelligent multi-model AI mobile chat interfaces (Gemini, Claude, GPT APIs) with SSE token streaming, optimistic cache invalidation, and custom markdown code rendering. Engineering Governance & CI/CD: Standardized team-wide engineering guardrails: Fastlane automated builds, strict lint rules, and pull request review scorecards, accelerating sprint release velocity by 35%.	
Flutter Game Developer • Phoenix	August 2023 – February 2025 Phnom Penh, Cambodia
Game Engineering & Physics: Engineered 60 FPS mobile game mechanics, interactive canvas animations, particle effects, and modular UI states across iOS and Android using Flutter and Dart. Full Store Lifecycle Administration: Directed release cycles on Apple App Store Connect and Google Play Console, resolving compliance reviews, managing signing keys, and streamlining release tracks. Performance Profiling: Conducted Dart DevTools memory leak audits and render tree profiling, reducing memory footprint by 28% and eliminating ANR (Application Not Responding) edge cases. Monetization & Analytics: Integrated mobile SDKs (ad mediation, Firebase Analytics, crash logging) and analyzed user conversion metrics to guide feature updates.	

PROFESSIONAL EXPERIENCE (CONTINUED)

- Full-Stack Developer • Best in Box & Tech Design Center

August 2022 – May 2023 | Phnom Penh, Cambodia / Remote

 - Cross-Platform Development:** Built responsive, production-ready mobile applications in Flutter and integrated custom Node.js / Strapi headless backend APIs with JWT authentication and offline caching.
- Quality Assurance Specialist • Thoth

August 2022 – January 2023 | Remote

 - ML Data Quality:** Executed high-accuracy transcription, acoustic structural segmentation, tagging, and timestamping of audio datasets for machine learning speech models.

OPEN-SOURCE FOOTPRINT & FLAGSHIP ENGINEERING PROJECTS

- chat_ui_flex • Published Flutter Package Author

pub.dev/packages/chat_ui_flex • Flutter / Dart

 - Engineered and published a zero-dependency, high-performance Flutter chat UI package with dynamic audio waveforms, swipe-to-reply actions, high-density message bubbles, and strict static analysis.
- The Production Bakong KHQR & FinTech Starter Kit

Flutter 3.x • EMVCo TLV • Node.js TS • BullMQ • Redis

 - Turnkey enterprise payment rail: Dynamic KHQR generation (USD/KHR), verified deep-linking for ABA Mobile, Wing Bank, Acleda, and Bakong, and HMAC-SHA256 verified webhook server with distributed lock idempotency.
- Flutter Mediasoup WebRTC SFU Real-Time Calling Engine

Flutter WebRTC • Mediasoup C++ • Docker • DRM Canvas

 - Self-hosted selective forwarding unit (SFU) audio/video cluster running on Docker with sub-45ms P95 latency, hardware-accelerated dynamic DRM canvas watermarking, and zero recurring per-minute SaaS costs.
- Dynamic Forensic Video DRM Watermarking Engine

Flutter / WebGL • Custom Canvas Painters • Forensic Security

 - Engineered hardware-accelerated dynamic video DRM canvas stamping encrypted viewer ID, client IP hash, and floating UTC timestamps over video streams to prevent screen recording and piracy of high-value media.
- Active Open-Source Ecosystem Maintenance

550+ Public Repositories • github.com/lysokheng

 - Maintains an active engineering portfolio of 550+ public repositories spanning Flutter tools, WebSockets, microservices, payment gateways, and real-time infrastructure templates.

EDUCATION & LANGUAGES

- Bachelor of Computer Science & Software Engineering • Phnom Penh, Cambodia

2020 – 2024

Languages: Khmer (Native Mother Tongue) • English (Professional Working Proficiency • Technical Architecture, Code Reviews & Client Communications).