Ten Chanvathana

Mobile & Full-Stack Engineer

BASED Phnom Penh, Cambodia (GMT+7)
WEB tenchanvathana.techsystem.site
EMAIL tcvathana.work@gmail.com
GITHUB github.com/tcvathana-work
LINKEDIN linkedin.com/in/ten-chanvathana-4a0b45169

SUMMARY

Mobile and full-stack engineer with 6+ years building mobile and web products. At Cambodia's Digital Government Committee, core developer on **DGConnect**, the OAuth 2.0 / OpenID Connect identity platform behind the DG SuperApp, and builder of on-device **eKYC auto-capture** with TensorFlow Lite, tuned for low-end phones. Alongside, I take client systems from requirements to production.

EXPERIENCE

Mobile Developer — Digital Government Committee

2023 - Present

Mobile engineering across delivery, architecture, and applied AI research

- Core developer on **DGConnect**, an OAuth 2.0 / OpenID Connect identity provider powering sign-in for the government's DG SuperApp (dgsuperapp.gov.kh), with login through banks (app-to-app), Google, Apple, and Telegram.
- Worked across mobile and backend: built the client-side authentication flows and partnered with backend developers on the server-side implementation so the full login flow works end to end.
- Built on-device **eKYC auto-capture** for the DG SuperApp, where the app decides in real time when to take the photo: owned R&D from model training to on-device inference with **TensorFlow Lite**, optimized for low-end devices: most users capture successfully within **1–3 s** on mid- to high-end phones and **3–5 s** on low-end phones.
- Trained a custom **small QR code detection** model with on-device inference and a tiled scanning approach, so even small QR codes are detected reliably.
- Integrate native Android and iOS capabilities into Flutter through platform method channels.
- Set up CI/CD pipelines for Flutter apps on Android and iOS with **GitHub Actions, Fastlane, Xcode Cloud, and Firebase App Distribution**, automating builds, tester releases, and App Store / Play Store releases.
- Monitor app performance and crashes in production with **Firebase Crashlytics**, and follow issues through to resolution with related teams and management.
- Contribute to system architecture and sprint planning in a Scrum team (daily stand-ups, Jira): break features into actionable tasks, track delivery, and keep project documentation organized.

Freelance Full-Stack Developer — Part-time

2024 - Present

End-to-end delivery for business clients, from first conversation to ongoing support

- **Svay Rieng University — Lecturer Record System** (end to end): used every day by **~160 lecturers** to record attendance and teaching for the Internal Quality Assurance office, with user, lecturer, course, timetable, and room management. Access control combines RBAC and ABAC; Flask APIs with Redis sessions and secure JWT cookies, deployed on Linux with Nginx and SSL.
- **Svay Rieng University — Student Grievance System** (end to end): mobile-first interface for students to submit grievances and a web portal for staff to resolve them, with Telegram notifications.
- **Svay Rieng University — Tracer Study** (DevOps): handled deployment and infrastructure for the graduate tracer study system.
- Gather requirements directly from stakeholders, design UI prototypes and database schemas, set up CI/CD, and provide maintenance and improvements after launch.

Freelance Mobile Developer

2020 - 2023

Flutter apps for clients across e-commerce and business, built on Clean Architecture

- **Student Exam app:** exam timer that keeps the correct remaining time even if the student closes and reopens the app, auto-submits when time is up, and preloads images and audio so a weak connection never interrupts an exam.
- **Invoice Management app:** reduced API requests by moving suitable logic to the client.
- Also built e-commerce, e-learning, and real estate apps; owned each project from requirements to release.

Flutter Developer — HomeApp Asia 2020

- Migrated the app from Flutter 1 to Flutter 2 with sound null safety.
- Led parts of the mobile team; built new features and maintained the existing app.

Flutter Developer — OneSala 2019 - 2020

- Turned UI/UX designs into production Flutter screens, built new features, and maintained the app; released it to the App Store and Play Store.

SKILLS

Mobile	Flutter, Dart, BLoC / Cubit, Riverpod, get_it, freezed, Clean Architecture, Melos, method channels
Mobile CI/CD	GitHub Actions, Fastlane, Xcode Cloud, Firebase App Distribution, Firebase Crashlytics, Xcode
Identity & Security	OAuth 2.0 / OIDC, federated identity, app-to-app auth, RBAC / ABAC, WebAuthn, Keycloak, Microsoft Entra ID, PKI & X.509
AI / ML	TensorFlow Lite, PyTorch, YOLO, OpenCV, computer vision, on-device model optimization
Backend	Python, Flask, Firebase, SQLAlchemy, Pydantic, Gunicorn, REST API design, database schema design
Frontend	React, Next.js, Tailwind CSS, TanStack Query, Figma (UI/UX)
DevOps	Docker, Linux VPS, Nginx & SSL, Redis, MinIO, CI/CD, Git

EDUCATION

Bachelor's Degree in Informatic Economy — Royal University of Law and Economics 2016 - 2020

Languages: Khmer (native), English (intermediate)

CERTIFICATES & COURSES

Artificial Intelligence Certificate Program — American University of Phnom Penh with KnowledgeHut upGrad · 6-month program (view) Feb - Aug 2024

Identity and Zero Trust Architecture — Microsoft · Coursera (verify) Oct 2026

Cryptography — ISC2 · Coursera (verify) May 2026

CISSP Domain 5: Identity and Access Management — Infosec · Coursera (verify) Apr 2026

SIDE PROJECTS · AI-ASSISTED, ALL LIVE

- **Plandraft** (plandraft.app): project management for small teams: board, list, and Gantt views synced live, on Cloudflare Workers, D1, and Durable Objects.
- **Chartdraft** (chartdraft.app): diagram and cloud architecture editor that Claude draws in through a remote MCP server; edits sync live to one shared document.
- **Git Mastery** (git-mastery.techsystem.site): type real git commands into a simulated terminal and watch the commit graph update live (30 lessons).
- **C Mastery** (c-mastery.techsystem.site): step through C programs with live stack, heap, and pointer visuals; in-browser C playground.
- **CSS Mastery** (css-mastery.techsystem.site): 61 lessons checking your CSS against a target render, from selectors to Grid and animation.
- **Zero Trust Lab** (iam-zt-arch-mastery.techsystem.site): study companion for Identity and Zero Trust Architecture, with simulation labs and quizzes.
- **Browser Arcade** (games.techsystem.site): 11 browser games, including a Three.js drift racer and a raycasting engine.