

Khine Zar Thwe

AI & Software Developer

khinezarthwe282@gmail.com | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

PROFESSIONAL SUMMARY

IT graduate and full-stack developer specialising in Java and Spring Boot enterprise systems, React Native mobile apps (shipped to Google Play and TestFlight), and Python AI/ML workflows using TensorFlow and OpenCV. Backed by hands-on QA/testing practice, Android Studio and Xcode delivery, and production experience at Reachfield IT Solutions, Singapore. Currently working towards the AWS Solutions Architect Associate certification, with a growing focus on AI and cloud development.

EXPERIENCE

Junior AI Developer

Reachfield IT Solutions, Singapore | Apr 2025 – Apr 2026 (1 year)

- Developed and deployed YOLO-based crowd-counting and object detection systems achieving 85%+ accuracy across 30+ concurrent video streams with real-time intrusion detection.
- Built two production React Native apps (Work Order Management, Form Management) shipped to Google Play and TestFlight using Android Studio and Xcode; deployed across 200+ active field staff on K10 and F2 ruggedised devices with full UAT coordination.
- Conducted comprehensive UAT and bug triage: logged 30+ critical bugs, managed severity classification, wrote detailed bug reports, and coordinated resolution across backend and mobile teams.
- Led Hibernate 5→6 migration with JDK 11→17 upgrade on enterprise SGEMS2 platform; rewrote 50+ DAO/Service classes for Jakarta EE compliance, resolved transaction deadlocks, coordinated UAT with 30+ critical bugs resolved.
- Integrated hardware APIs: Face++ facial verification, Bluetooth thermal printers, QR/barcode scanners, GPS/EXIF tracking; implemented multi-flavour Android build configurations for device-specific requirements.
- Developed FastAPI Python microservices for real-time emotion detection (7-class custom CNN model) and crowd density analysis; deployed containerised inference servers on Render with async request handling.
- Designed and implemented REST API layer for SGEMS2; optimised SQL queries on 50K+ record databases; trained 20+ field staff on app deployment and device configurations.

FEATURED PROJECTS

GlucoSG — Full-Stack Nutrition Tracking App

 Singapore Polytechnic SP Energized Hackathon 2025 — 1st Place Winner

Full-stack nutrition tracking app for diabetic population. React/Vite frontend, Node/Express backend, Supabase (PostgreSQL, Realtime Auth). Tested and validated app across platforms. [View on GitHub](#)

SGEMS2 Mobile Apps — React Native (Shipped)

Two production React Native apps shipped to Google Play and TestFlight. Built using Android Studio and Xcode for cross-platform deployment. Features: Work Order Management, Form Management, Bluetooth thermal printing, QR scanning, Face++ verification. Deployed across 200+ field staff on K10 and F2 ruggedised devices. Coordinated full UAT with 30+ critical bugs logged and resolved.

Code-to-Cloud Architecture Visualizer

AWS-native app: paste code → architecture diagram with cost estimates. React frontend, Python Lambda functions, API Gateway, Claude Bedrock. [Live Demo](#) | [GitHub](#)

EmotionVision — Real-Time Emotion Detection

Custom TensorFlow CNN model (7-class emotion classification), OpenCV video pipeline, FastAPI microservices, Docker containerisation. Real-time emotion detection and crowd density analysis. [GitHub](#)

SGEMS2 Enterprise Platform

Java/Jakarta EE security & estate management system deployed across Singapore. DAO/Service layer, REST APIs, relational database schema design, JSP templating, Hibernate ORM. Participated in comprehensive UAT cycle.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, C#, SQL, HTML/CSS

Frontend & Mobile: React, React Native, Android Studio, Xcode, iOS/Android, Vite, Tailwind CSS

Backend & Systems: Jakarta EE, Spring Boot, Node.js/Express, FastAPI, Hibernate, REST APIs

AI & Vision: TensorFlow, OpenCV, MediaPipe, YOLO, CNN models

Cloud & DevOps: AWS (Lambda, S3, Bedrock, API), Docker, Git, Linux, CI/CD

Databases: MySQL, PostgreSQL, Supabase

Hardware Integration: Bluetooth, QR scanners, Face++ API, K10/F2 devices, GPS/EXIF

QA & TESTING SKILLS

Testing & QA: UAT coordination, bug severity classification, bug report writing, test case design, regression testing, manual testing

Tools & Practices: Postman (API testing), Android Studio (device testing), Xcode (iOS testing), comprehensive UAT cycles

Experience: 30+ critical bugs logged in SGEMS2 UAT, coordinated bug triage across teams, wrote detailed bug reports, tested mobile apps pre-deployment

LANGUAGES

English (Professional) • Burmese (Native) • Rakhine (Native)

EDUCATION

Diploma in Information Technology (Software & Applications)

Singapore Polytechnic | Graduated April 2026

Elective: Certificate in Data & Analytics (2024)

CERTIFICATIONS

- [AWS Certified AI Practitioner \(AIF-C01\)](#) — Amazon Web Services (July 2026)
- [AWS Cloud Practitioner \(CLF-C02\) Training Complete](#) — Amazon Web Services (June 2026)
- [Software Testing/QA](#) — LinkedIn Learning (June 2026)
- [AI Ethics & Governance \(Associate Level\)](#) — Singapore Computer Society
- [S Pass Eligibility Letter](#) — Singapore Polytechnic