

Chalanthorn Chanmathikornkul (Jojo)

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WORK EXPERIENCE

Tri Service General Hospital, Digital Medical Center (AI)
Android Developer

Taipei, Taiwan
09/2024 – Present

- Led a complete rewrite of the [TSGH Helper](#) app (100K+ installs) using **Jetpack Compose**, **Flows** and **Coroutines**, delivering a unified experience across authentication, appointments, payments, telemedicine, and report viewing.
- **Authentication:** Integrated JWT-based authentication with encrypted local storage for secure, consistent sessions.
 - **Product Impact & Reliability:**
 - Raising Play Store rating from **3.2 to 4.7 stars** within months of release.
 - Cutting crash rates from **1 % to 0.05 %** by integrating Firebase Crashlytics, Analytics, and a force-update system for proactive monitoring and controlled rollouts.
 - **Security & Compliance:**
 - Achieved **OWASP MASVS Level 3** compliance, ensuring enterprise-grade mobile app security.
 - Integrated **biometric authentication** for sensitive actions such as payments and telemedicine features.
 - **Model Deployment:** Deployed a legacy MXNet model for ECG Classification on Android via TVM, a custom C++ runtime, leveraging compiler internals knowledge to resolve ABI compatibility and linker issues between JNI and NDK libraries.
 - **SDK Interoperability:** Integrated the Webex SDK into the app, bridging legacy Android Views with Compose-based logic.
 - **Localization:** Improved cross-platform localization process via Tolgee integration and unified translation keys.
- Tech Stack: Kotlin | Coroutines | Flow | Jetpack Compose | Hilt | Retrofit | WorkManager | Webex SDK | Junit 5

Frontier.cool
AI Engineer Intern

Taipei, Taiwan
07/2023 – 06/2024

- **Model Development:** Developed and deployed a textile classification, improving accuracy **from 50% to 85%** using PyTorch and AWS Lambda.
 - **API Development:** Deployed a production-level machine learning model **API** on AWS Lambda for textile classification.
- Tech Stack: PyTorch | Docker | AWS Lambda | AWS S3 | Postman | Git | Python | OpenCV

National Tsing Hua University
Private Tutor

Taipei, Taiwan
09/2023 – 06/2024

- **Tutoring:** Aided 5 students in Python, C, Computer Architecture (RISC-V), and SQL.

EDUCATION

National Tsing Hua University, BS, Electrical Engineering and Computer Science

Hsinchu, Taiwan
2024

- GPA 3.91/4.3 (Top 6/34) | Academic Excellence Award 2023 | Scholarship 2020 - 2024

PROJECTS

Compiler Design Tech Stack: Lex | Yacc | C | Makefile | Linux

2024

- Developed a C Compiler, implementing lexical analysis, parsing, semantic analysis, code generation, and optimization.

Lifeline (Android Developer, UX/UI Designer) Tech Stack: Kotlin | Jetpack Compose | SQL | Hilt | Figma

2022

- An Android to-do application designed to enhance users' planning by prioritizing tasks based on duration and deadlines.
- **User Research:** Conducted user research to empathize with users' challenges in task management, mapped out user journeys and created detailed storyboards to visualize user interactions and pain points.
 - **Development:** Leveraged Kotlin and Jetpack Compose to build a functional Minimum Viable Product application.

AWARDS

Thailand Olympiad in Informatics: Competitive Programming (C++), Bronze Medal

2019

NECTEC: Thailand National Software Contest An app to simplify work attendance using geofencing in Java.

2017

SKILLS & INTERESTS

Languages: Thai (Native), English (Fluent) (TOEIC – 910/990, TOEFL iBT – 96/120), Chinese (Intermediate)

Technical Skills:

Programming: Kotlin, C++, Python, Go, SQL, Java
Frameworks: Jetpack Compose, Hilt, Retrofit, Supabase, Firebase
Tools: Git, Docker, AWS Lambda, Linux