

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 rate from **1 % to 0.07 %** 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.
- **SDK Interoperability:** Integrated the Webex SDK into the app, bridging legacy Android Views with Compose-based logic.
- **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.
- **Localization:** Improved cross-platform localization process via Tolgee integration and unified translation keys.

Tools: Kotlin | Coroutines | Flow | Jetpack Compose | Hilt | Retrofit | WorkManager | Webex SDK | Junit5

Frontier.cool
AI Engineer Intern

Taipei, Taiwan
07/2023 – 06/2024

- **Model Development:** Developed a new textile classification model using OpenCV, including color classification on fabrics, significantly improving accuracy **from 50% to 85%** compared to baseline models.
- **API Development:** Deployed a production-level machine learning model **API** on AWS Lambda for textile classification.

Tools: 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
06/2024

- Academic Excellence Award (2023) - GPA: 3.91/4.3, Ranked 6th out of 34.
- University Scholarship (2020 - 2024).
- Active member of the Piano Club and Guitar Club; performed as a band at the International Food Festival.

PROJECTS

Compiler Design Tools: 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) Tools: Kotlin | Jetpack Compose | SQL | Dependency Injection | 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, Bronze Medal Tools: C++

2019

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

2017

SKILLS & INTERESTS

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

Technical Skills: C, C++, Python, Kotlin, Go, SQL, Java, Firebase, GraphQL, Supabase, Git (Version Control), Linux, Gitlab, Github, Docker, AWS Lambda, S3