Chalanthorn Chanmathikornkul (Jojo)

jojoclt | jojochalanthorn | cltms01@gmail.com | +886 933483854 | Taipei, Taiwan | Blog: jojonosaur.us

WORK EXPERIENCE

Tri Service General Hospital, Digital Medical Center (AI) *Taipei, Taiwan*
Android Developer **09/2024 – Present**
- **Led a complete rewrite** of the **TSGH Helper** app using **Jetpack Compose**, **Flows and Coroutines**, enabling seamless user experiences across authentication, appointment scheduling, payments, telemedicine, and medical 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 Crashlytics, Analytics, and a force-update system for proactive monitoring and controlled rollouts.
- **Security & Compliance:**
  - Achieved **MAS 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 *Taipei, Taiwan*
AI Engineer Intern **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 *Taipei, Taiwan*
Private Tutor **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*
- Academic Excellence Award (2023) - GPA: 3.91/4.3, Ranked 6th out of 34. **06/2024**
- 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, MySQL, PostGreSQL, Firebase, GraphQL, Supabase, Git (Version Control), Linux, Gitlab, Github, Docker, AWS Lambda, S3