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 (三總便民幫手)   **09/2024 – Present**

- Led a complete rewrite of the **TSGH Helper** app using **Jetpack Compose** and **Kotlin Flows,** enabling seamless user experiences across authentication, appointment scheduling, payments, telemedicine, and medical report viewing.
- **Authentication:** Built secure JWT-based login, refresh, and sign-up flows ensuring consistent user sessions.
- **SDK Interoperability:** Integrated the Webex SDK into the app, bridging legacy Android Views with Compose-based logic.
- **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.
- **Product Impact:** Led the new app release process on Play Console, improving user satisfaction, reflected by a rating increase from **3.2 to 4.7** stars within months.
- **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.
- **Testing:** Incorporated Unit and UI tests to ensure reliability and maintainability across core functionalities.

Tools: Kotlin | Jetpack Compose | Retrofit | WebSocket | Dagger-Hilt | Certificate Pinning | Webex SDK | Junit5 | Robolectric

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, used SQL for data management and MVVM architecture for scalable code, and Dependency Injection to ease testing process.

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:
- Programming Languages: C, C++, Python, Kotlin, Go, SQL, Java
- Database: MySQL, PostGreSQL, Firebase, GraphQL, Supabase
- Development Tools: Git (Version Control), Linux, Gitlab, Github, Docker, AWS Lambda, S3