ENG LIM PENJAN ANTONIO (엥림펜잔안토니오)

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- Dual Citizenship: South Korea and Cuba

SUMMARY

Cuban-Korean software developer with nearly 3 years of professional experience spearheading mobile application development across telecom and enterprise sectors, using modern development practices and Kotlin/Java. Experienced in driving adoption of modern architectural patterns and Android best practices across multiple successful applications. Advanced expertise in data processing and algorithm optimization from AI/ML research background, enabling development of highly efficient and scalable mobile applications.

TECHNICAL SKILLS

- **Core Android Development**: Kotlin, Java, Android SDK, MVVM, JetPack, LiveData, View Binding, Coroutines, Material Design, JUnit, Espresso
- **Data Management & Storage**: SQL, SQLite, Room, SharedPreferences, Retrofit, Moshi
- **Additional Languages & Tools**: Git, mockk, HTML/CSS, JavaScript, Flutter, Python, Linux, PyTorch

PROFESSIONAL EXPERIENCE

Software Developer | Desoft, Cuba | 2020.11 – 2021.12

- Independently developed and designed a feature-rich news reader app for Cuba's leading news platform, enabling offline article saving, advanced search and filtering capabilities, and comprehensive content personalization and discovery that reduced average search time from 2 minutes to 30 seconds
- Engineered the first digital gas consumption management app in Cuba, enabling automated tracking and visualization features that reduced operational times by 70%
- Led code reviews and mentored junior developers in modern Android practices, introducing Kotlin coroutines and MVVM architecture patterns that reduced average code review iterations by 30%
- Implemented Android field service management application featuring custom calendar UI with Google Calendar sync, interactive ticket management, and location services with route navigation

Mobile Application Developer | ETECSA, Cuba | 2019.01 – 2020.06

- Developed Cuba's first comprehensive Yellow Pages Android app, implementing a hybrid system combining online business searches with offline capabilities
- Engineered custom vector mapping system reducing data usage by 85% while maintaining full functionality in offline mode
- Implemented automated background synchronization for offline access to government services and telephone information sections
- Executed comprehensive software testing, including unit, UI and compatibility tests, optimizing reliability and user experience

RESEARCH EXPERIENCE

Student Researcher | Data Mining Lab, Chungnam National University | 2022.09 – 2024.08

- **Patent Application:** Developed a federated learning algorithm improving random forest accuracy by up to 10% on non-IID datasets, resulting in a patent application (Appl. No. 10-2024-0001659)

- **Published Research:** Published multiple research papers, including a peer-reviewed paper in *Expert Systems with Applications* (SCIE Journal) on distributed AI systems ([Link](#))
- **Increased Model Performance:** Enhanced RoBERTa classification performance to near-perfect accuracy (99.5%) by augmenting limited training data with GPT-4-generated synthetic articles

EDUCATION

- **M.S. in Computer Engineering** │ Chungnam National University │ 2022.09 – 2024.08
  GPA: 4.33/4.5
- **B.S. in Computer Engineering** │ CUJAE, Cuba │ 2015.09 – 2020.07
  GPA: 4.5/5
- **Korean Language Program** │ Busan University of Foreign Studies, 2021.12 – 2022.08

AWARDS AND GRANTS

Best Presentation Paper Award, Korean Institute of Information Scientists and Engineers (KIISE), 2024.02
Global Korea Scholarship (GKS) Grant, National Institute for International Education (NIIED), 2021 – 2024
National Computer Science Competition Award for the Yellow Pages Android App, Ministry of Higher Education, Cuba, 2019.01

LANGUAGES

English (Full fluency, TOEIC 950), Korean (Advanced, TOPIK Level 6), Spanish (Native)

SELECTED PROJECTS

Cubadebate News Reader

- Built customizable news feed system with dynamic category and topic selection interfaces, enabling personalized content delivery
- Implemented offline caching for bookmarking full articles, including images
- Designed real-time topic management system with dynamic search, post count display, and automatic list reordering
- Integrated comprehensive features including in-article text search, text-to-speech capability, voice recognition, multi-level commenting interface, infinite scroll with efficient data loading, and SMS subscriptions

Gas Consumption Manager

- Engineered comprehensive utility management app for the National Manufactured Gas Company, implementing offline data persistence with Room, automated consumption calculations and reporting
- Implemented interactive features including visualization tools, multimedia consumption guides, and streamlined communication channels with company offices

Government Portal App

- Modernized legacy codebase of official government platform by implementing MVVM architecture and Coroutines with Jetpack components (LiveData, ViewModel, Navigation), improving maintainability and reducing development time
- Engineered responsive REST API integration using Retrofit2 and Moshi, implementing data validation, caching, and error handling for reliable delegate information management