

ENG LIM PENJAN ANTONIO (엔림펜잔안토니오)

🏠 Seoul, South Korea ✉️ penjan.eng@gmail.com 📁 Portfolio: englim.me

• Dual Citizenship: South Korea and Cuba

SUMMARY

Innovative software engineer with expertise in the latest Android technologies, performance optimization, and data-driven user experience design. Experienced in driving adoption of modern architectural patterns and Android best practices across multiple robust 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, Navigation, Maps & Location, Android Studio, Gradle
- **Data Management & Storage:** SQL, SQLite, Room, SharedPreferences, Retrofit, Moshi, REST API
- **Additional Languages & Tools:** Git, HTML/CSS, JavaScript, Flutter, Proguard, APK Signing, Python, Linux, PyTorch

PROFESSIONAL EXPERIENCE

Software Engineer | Desoft, Cuba | 2020.11 – 2021.12

- Independently developed news reader app for Cuba's leading news platform, enabling offline article saving and implementing real-time topic management system and dynamic search with personalized content delivery that reduced average content search time from 2 minutes to 30 seconds
- Engineered Cuba's first digital gas consumption management app, enabling automated tracking and visualization features that reduced operational times by 70%
- Mentored junior developers and introduced Kotlin Coroutines and MVVM architecture to enhance code quality and maintainability, resulting in a 30% reduction in bugs during new feature development
- Developed Android field service management application integrating Calendar API and in-app Google Maps functionality, reducing ticket location search and navigation time by 20%

Mobile Application Developer | ETECSA, Cuba | 2019.01 – 2020.06

- Successfully developed Cuba's first 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, reducing data usage by up to 30%
- Integrated in-article text search, text-to-speech capability and voice recognition capabilities, increasing content accessibility by 40%
- Designed and implemented Material Design-based UI with real-time article search/filtering, multilevel commenting, SMS subscription, and infinite scroll interface, enhancing user engagement

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, Coroutines, and Jetpack components, improving maintainability and development workflow
- Built district representative management system using Retrofit2, implementing automated complaint submission tracking and meeting schedule management, streamlining administrative processes