

# Giovanni Salinas

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🌐 linkedin.com/in/gsalinaslopez | 🐙 github.com/gsalinaslopez | 💻 Python, Java/Kotlin, Swift

## Experience

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### Appier (沛星互動科技)

Software Engineer

Apr 2022 - Present

Taipei, Taiwan

- Enhanced the internal testing suite scalability for **Android/iOS/React Native/Flutter** mobile SDKs by developing a single unified codebase for all platforms using **Appium**
- Conducted release process verification by modifying the internal **Android/iOS** testing apps and implementing automatization scripts

### ACpay (交流資服)

Software Engineer

Feb 2021 - Feb 2022

Hsinchu, Taiwan

- Improved the company's payment terminal device **Java/Kotlin/Android** application by fixing existing issues and adding new features following Android's app architecture best practices
- Enhanced the app's robustness and maintainability by using Android's native architecture components library, Unit Testing, and Continuous Integration/Deployment
- Composed documentation and UML diagrams describing the app's software structure and its different modules

### Industrial Technology Research Institute (工業技術研究院)

Software Developer. *Part-time (2018) | Internship (2017)*

Jan - Jun 2018 | Jul - Aug 2017

Hsinchu, Taiwan

- Developed a **Java/Android** encoder/decoder (*BER*) API wrapper for intelligent transportation networks by porting a native **C** runtime library (*ASN.1 C*)
- Implemented **Java/Android** high-level API wrappers for interfacing with the device's LTE Evolved Multimedia Broadcast Multicast Services (*eMBMS*)

### GeoThings (究心科技)

Software Developer. *Part-time*

Dec 2015 - Aug 2016

Hsinchu, Taiwan

- Designed UI/UX for an **iOS/Swift** mobile mapping tool by writing RESTful callbacks for fetching, processing, and displaying map information from OpenStreetMap
- Implemented a map tagging feature that uploads user-contributed data to the OpenStreetMap project database using RESTful

## Education

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### National Chiao Tung University

Masters in Electrical Engineering and Computer Science. *GPA: 3.61, Percentile: 81.48/100*

October 2020

Hsinchu, Taiwan

### National Chiao Tung University

Undergraduate in Computer Science. *GPA: 2.85, Percentile: 73.13/100*

June 2016

Hsinchu, Taiwan

## Coding Projects

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### MagRSS

Personal Software Project

- Created a Machine Learning Project with the goal of identifying what road lane a user is located
- Wrote an **Kotlin/Android** application that continuously captures LTE Base Station Access Points signal intensities, magnetometer, and GPS coordinates, allowing the categorization of signal fingerprints as 'road lane' labels used for training
- Implemented data filtering subroutines in **python/pandas/numpy** used for cleaning and preprocessing noisy signals
- Collected training data using the MagRSS application by going around campus and labeling certain routes depending on where the logs were taken. 120k entries total for demonstrating the proof-of-concept
- Developed a Back Propagation Neural Network in **python/tensorflow** that is trained on the collected data and makes predictions on test data. Achieved close to 90% accuracy

## RadioCapullo

Personal Software Project

- Developed a free and open-source **Kotlin/Android** application for music broadcasting and multi-device listening
- Integrated and ported native/NDK library used for LAN broadcasting and oboe player playback
- Implemented Network Service Discovery to advertise on-device HTTP/Zeroconf server for connecting with Spotify
- Designed IPC communication between network broadcasting and playback services

## ROS Drone Controller

Masters Research Project

- Installed a Robot Operating System (ROS) service instance on a drone controlled by a Raspberry Pi
- Developed an **Kotlin/Android** application that brings the user a Joystick UI and sends flight instructions to the ROS controlled drone
- Setup a TCP socket connection between an Android application and the ROS controlled drone, both of which were connected to a special LTE testbed network provided by school for experimental purposes

## Position Sensor

Masters Research Project

- Developed a **Java/Android** application that uses the built-in accelerometer and gyroscope and implemented an Inertial Navigation Unit (INU)
- Enhanced INU signals by applying a Kalman-Filter that constantly adjusts on feedback from the sensors
- Displayed the path the user has taken so far on-screen

## Research Publications & Academic Awards

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### IEEE International Conference on Communications (ICC)

May 2018

Second Author. Conference Presenter

Kansas City, MO, USA

- "V2PSense: Enabling Cellular-Based V2P Collision Warning Service through Mobile Sensing,"  
C. Li, **G. Salinas**, P. Huang, G. Tu, G. Hsu and T. Hsieh.

### National Chiao Tung University Scholarship

Sep 2016

Scholarship Recipient

- Outstanding new student award - Masters Program
- Scholarship awarded to Degree-seeking foreign students that consisted of tuition fee waiver and a monthly allowance to cover basic living expenses

### Ministry of Foreign Affairs (MOFA) Taiwan Scholarship

Aug 2011

Scholarship Recipient

- Selected as 1 out of 15 awardees at a National (Nicaragua) level by MOFA of the Government of Taiwan based on academic merit to undergo Mandarin Chinese Language studies at a Taiwanese Language Center, followed by Higher Education (Undergraduate) studies at a Taiwanese University
- Scholarship program consisted of monthly allowance for 5 years to cover tuition and living expenses

## Technical Skills

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### Software Tools

- **Python:** Testing Suite (pytest), **Mobile App development:** XCode (*iOS - Swift*), Android Studio (*Android - Java/Kotlin*), **CI/CD:** Jenkins, GitHub Actions, **Version Control:** Git

### Language

- **English:** Advanced (*TOEFL iBT score 104/120*), **Mandarin Chinese:** Intermediate/Advanced (*TOCFL score 80/100*), **German:** Basic/Intermediate (*TestDaf B1 certificate*), **Spanish:** Native