

# Nai-Wu Tien (Felix)

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## EDUCATION

University of Alabama at Birmingham

April 2022

Master of Computer Science | GPA: 4.0/3.6

## SKILLS

- Java ● Python ● C ● Kotlin ● Swift ● HTML5 ● CSS ● JavaScript ● MySQL ● Flask ● Visual Studio Code
- Xcode ● Android Studio ● Algorithms ● Data Structures ● Dynamic Programming ● Parallel Computing
- Android Development ● iOS Development ● Web Full Stack Development

## EXPERIENCES

### Algorithms Teaching Assistant | UAB CS Department

Jan 2023 – Apr 2023

- Explained the definition of Asymptotic Notations and how to prove them.
- Described in detail every step of Merge Sort, Quick Sort, Heap Sort, etc.
- Illustrated the theory and coding approach of Dynamic Programming, and Data Structure.
- Taught drawing Recursion Tree and using Masters Theorem to calculate recursion run time.

### Java Teaching Assistant | UAB CS Department

Jan 2022 – Apr 2022

- Taught Java basics including an intro to Java's syntax, variables, data types, operators, etc.
- OOP system design. Explained objects, classes, inheritance, polymorphism.

### Python Teaching Assistant | UAB CS Department

Aug 2021 – Dec 2021

- Taught Python basics including Python's syntax, variables, data types, operators, etc.
- Illustrated how to use functions, function parameters, and how to get the return values.

## PROJECTS

### Android Developer | Designed an Android Japanese study app

Spring 2023 Project

- Utilized Android Studio and wrote XML for UI design and used Kotlin for app logic.
- Employed Retrofit to make a network request.
- Used Room Database to store data in Android.
- Utilized Share Preference to store small data in Android.
- Published Android App to Google Play Console.
- Android Project Link: <https://reurl.cc/WvGGd7>

### iOS Developer | Designed an iOS Japanese study app

Fall 2022 Project

- Utilized Xcode and wrote SwiftUI for UI design and used Swift for app logic.
- Employed URLRequest to make a network request.
- Used Core Data as the database to store data in iOS.
- Utilized User Default to store small data in iOS.
- Published iOS App to Apple Store Connect.
- iOS Project Link: <https://apps.apple.com/us/app/ilpt-n1-level/id1663524569?l=zh-Hant-TW>

### Web Full Stack Developer | Designed a coding online IDE website

Summer 2023 Project

- Employed HTML, CSS, and JavaScript to craft the frontend of the website.
- Utilized the Flask framework in conjunction with an SQLAlchemy database for the website's backend.
- Facilitated group collaboration by employing the version control system, GitHub.
- Implemented solutions for LeetCode questions and documented them in a structured JSON format.
- Successfully deployed the website project to a domain acquired through Google Domains.
- Website Link: <https://www.likecode.org>

### Parallel Computing | Job Scheduler

Fall 2022 Project

- Utilized mutex to prevent concurrency and p\_threads to allow the program to perform multithreaded workloads.
- Implemented queue data structure using linked-list to organize and keep track of jobs.

## LANGUAGES SKILLS

- Mandarin (native)
- English (fluent)
- Japanese (fluent)
- Taiwanese (native)