

Chien-Ying (Catherine) Yang

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EDUCATION

Boston University

Master of Science in Computer Science

Boston, MA

Sep. 2022 – present

National Taiwan University

Bachelor of Science in Engineering Science

Taipei, Taiwan

Sep. 2017 – June 2021

CORE SKILLS

Languages: Python, Swift, Java, JavaScript, HTML/CSS, C++

Frameworks: React, Node.js, GraphQL, Material-UI

Developer Tools: Xcode, Git, Web Driver Agent, Android Debug Bridge, Google Chrome Extension

Database management: MongoDB, MySQL

EXPERIENCE

Python Programming Teaching Assistant

National Taiwan University

Sep. 2021 – Jan. 2022

Taipei, Taiwan

- Taught a 2-hour course twice weekly with original tutorials and hands-on work to 800+ students, the largest university **Python** course in Taiwan
- Held individual office hours for 20+ students 3 hours per week

Software Engineer Intern

ShopBack Co. Ltd.

Feb. 2021 – July 2021

Taipei Taiwan

- Developed automated testing scripts using **Python** for 2 key projects, successfully improving team efficiency by 60% daily
- Utilized **Web Driver Agent** and **Android Debug Bridge** to perform automatic tests on ShopBack's iOS and Android application's search, login and signup functions

PROJECTS

Collaborative Bookmark Group Management Website Development

Apr. 2021 – July 2021

- A web service build with **React** and connected to a back-end api built with **Node.js**, **GraphQL** and **MongoDB**, allowing multiple users to co-edit bookmarks groups in real-time
- Used **React** as the framework to develop a **Google Chrome Extension** and combined with the service to enhance the function of editing bookmarks

Trip Together – Co-edit Trip Planning iOS Application Development

Sep. 2020 – Jan. 2021

- Coded in **Swift** and integrated **Google Map API** to develop a co-editing trip planning mobile application for iOS, allowing 50+ users to plan trips and share ideas with others
- Integrated **Map Kit** in the app to display nearby store locations and show current location

Piglet Automated Weighing System Development Using AI

Sep. 2020 – Jan. 2021

- Coded in **Python** to develop a visualize dynamic interface system for weighing piglets and uploading data directly to the computer through a wireless network
- Utilized **multi-threading** to run tasks on a separate thread in order to boost the system performance by 50%

Restaurant Choice Recommendation System Development

May 2020 – June 2020

- Coded in **Python** under the **Tkinter** framework to develop a frontend interface that connects with **Google Place API** to access nearby location data for restaurant recommendations

Ultrasonic Obstacle Avoiding Self-Sailing Crewless Ship Development

Mar. 2020 – June 2020

- Coded in **C**, developed on **STM 32 microcontroller** and utilized ultrasound sensor to detect nearby obstacles' distances and determined corrective actions for a self-sailing crewless ship

Functionally Reduced And-Inverter Graph

Nov. 2019 – Jan. 2020

- Coded in **C++**, parsed input circuit from description files, performed Boolean logic simulations, identified functionally equivalent candidates in circuits through a Boolean satisfiability problem (SAT) solver, and simplified the circuit