

Tiancheng (Alan) Luo

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EDUCATION

New York University, New York, NY (NYU)

Sept 2019 – (expected) May 2021

- M.S. Computer Science

WORKING EXPERIENCE

Teaching Assistant New York University, New York, NY

Sept 2019 – Present

- Teaching Assistant for Practical Computer Security (Present). The class focuses on software and web security.
- Teaching Assistant for iOS Programming (Sept 2019 – May 2020). The course teaches both **Objective-C** and **Swift**.

iOS Intern HalloApp, Inc., Palo Alto, CA

May 2020 – Aug 2020

- Added features to a social networking app using **Swift** and **SwiftUI**.
- Finished the **Avatar** project that allows users to add, change, and remove their avatars. Also utilized the **Combine framework** to handle real-time avatar update.
- Finished the **Share Extension** project, allowing users to share content (such as images, videos, URLs) from other apps.

Software Engineer Advanced Institute of Information Technology, Peking University, China

Jan – Jul 2019

- Developed iOS apps (**Swift**) and backend servers (**Flask**, **Laravel**, and **MySQL**) to implement business solutions (such as tracking employees' workflow and collecting marketing data for salespeople). The workflow app increased a factory's productivity by 7%, and the marketing data app decreased the salesperson's working hours by 2 hours per market area.
- Wrote **Python** scripts to stripe information from the production log of factory machines for further analysis. The scripts found symptoms before failure happened and calculated average failure time. It helped to decrease the downtime by 33%.

PROJECTS

Shopcart

Sept – Dec 2020

- A microservice for an e-commerce website using **Flask** as the framework, **RESTful API** as the architectural, and **PostgreSQL** as the database system.
- Implemented **unit testing (TDD)** and **behavior testing (BDD)** to speed up development and refactoring.
- Configured a **CI/CD** pipeline so that the app can be deployed to IBM Cloud faster.

Price Tag

Apr – Jul 2019

- An iOS app that assists salespeople in collecting price data and sales status and analyzing market demand. The app cuts data collection time in half so that salespeople have more time to market products.
- Implemented an **iOS app (Swift)** to scan price tags and detect price numbers through iOS build-in **VisionRectangleDetection**.
- Implemented a backend server with **Flask** to accept images and query a pre-trained **CRNN** model for text recognition.
- Implemented a backend server with **Laravel** and **MySQL** to record all results for further analysis.

Hawk Events

Oct 2017 – Dec 2017

- An iOS app with the features of showing events near users, sharing events between users, and publishing new events. The app increases student interest in participating in school activities.
- Designed a backend server based on **Ruby on Rails** to collect event data and provide **RESTful APIs** to the iOS app, hosted on **Heroku**. Stored event data on **AWS RDS** and event images on **AWS S3**, used **AWS Lambda** for resizing images.
- Developed an **iOS app (using Swift)** based on **Google Maps** to show events. Utilized **Alamofire** to query the RESTful APIs, **Google Places** to get geographic coordinates from addresses, and **Material Design** to improve the interfaces.

SKILLS

- Python, Java, PHP, Ruby, Swift, Objective-C, C / C++, Go, HTML & CSS, JavaScript, Markdown, LaTeX
- Laravel, Ruby on Rails, Bootstrap, Flask, React, jQuery, Amazon Web Services, DigitalOcean, Heroku, GitHub, Docker

CERTIFICATIONS

- AWS Certified Solutions Architect – Associate
- AWS Certified Developer – Associate