

# Anthony Chao

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## TECHNICAL SKILLS

**Languages:** Python, C/C++, JavaScript, TypeScript, HTML/CSS, Java, SQL, R, Bash

**Libraries/Tools:** React, Redux, Django, Flask, Git, ESP-IDF, Firebase, AWS, MySQL, PostgreSQL, GraphQL

## WORK EXPERIENCE

**Embedded Software Engineer** — AVA Technologies Inc. *September 2020 - Present*

- Redesigned and developed the firmware that runs AVA's second generation smart garden, the Byte, using the Espressif ESP32 microcontroller
- Utilized ESP-IDF to provide core functionalities such as WiFi connection, OTA updates, MQTT communication, and peripheral control
- Cut expected manufacturing costs of the second generation Byte by 65%
- Migrated DevOps firmware build process from local machine to AWS cloud services to decrease build time by 50%, and increase robustness and scalability

## PERSONAL PROJECT EXPERIENCE

**E-Commerce Web Application** *<https://github.com/anthonysea/clown-clothing>*

- Created a mock e-commerce web application using React, Redux, React-Router, Firebase, and Stripe
- Integrated user sign-in with Firebase as well as state persistence for the cart using local storage
- Simulated customer payment user flow using Stripe

**Email Parsing Raffle Program**

- Developed an email parsing program to automatically select raffle winners for raffles at Menu Skateshop
- Parsed email raffle entries, validating entries and removing any banned or duplicate entries
- Reduced overall time to select raffle winners by 80%

**Animal Crossing: New Horizons Web Application** *[https://github.com/anthonysea/acnh\\_web\\_app](https://github.com/anthonysea/acnh_web_app)*

- Designed and constructed the frontend and backend systems for an Animal Crossing: New Horizons game guide web application
- Scraped game data using Scrapy which was used to populate the Firebase backend
- Completed the frontend interface using React which would dynamically fetch data from Firebase

## ACADEMIC PROJECT EXPERIENCE

**Project Management Tool** — Web-Based Info Systems, *CMPT 470* *May 2019 - August 2019*

- Collaborated with a team of six members to create a project management tool for bug and feature tracking, implemented with Vue.js and the Django REST Framework
- Created the API endpoints that supported essential CRUD commands and implemented permissions that restricted access to those endpoints
- Implemented authentication rules using JSON Web Tokens that were customized for the frontend

## OTHER WORK EXPERIENCE

**Stussy Vancouver** — Assistant Manager *October 2017 - August 2020*

- Maintained the aesthetic of the shop, ensuring that clothes were presented following the visual merchandising guidelines
- Handled set-up and closing of the shop which consisted of merchandising clothes, cleaning the shop, and ensuring that it was ready for the next day

## EDUCATION

**Simon Fraser University**

*Bachelor of Computing Science*

*September 2016 - August 2019*

**Langara College**

*Associates of Science in Computing Science (Curriculum)*

*September 2014 - April 2016*