

# Haoran Yu

Incoming Spring SWE Intern @ Apple Inc. | She / her | LGBTQ | AfroTech & GHC Supporter  
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## EDUCATION

### Northeastern University - Silicon Valley, CA

Expected: May. 2022

Candidate for Master of Science in Computer Science GPA 4.0/4.0

Courses: Object Oriented Design, Software Engineering, Web Development, Databases, Algorithm

### University of Dundee - Dundee, UK

Sept. 2014 - May 2019

Bachelor in Architecture (Hons)

## TECHNICAL KNOWLEDGE

**Languages:** Java, C#, Python, JavaScriptES6, TypeScript, MySQL, C, HTML5/CSS3, exposed to C++, Golang, Ruby

**Framework & Environment:** Angular, Spring, SpringBoot, MyBatis, Node.js, Express, Flask, Django, React, Bootstrap,

Babel, Webpack, Redux, AJAX, Restful APIs, MySQL, MongoDB, Redis, Cassandra, Neo4J, ZooKeeper, Kubernetes

**Tools:** Android Studio, Git, Google-Maps-API, Paypal-Rest-SDK, AWS-CLI

**Operating Systems:** Familiar with developing under Linux, Mac and Windows

## PROJECTS EXPERIENCE

### Distributed System & Cloud Computing - San Jose, CA

July. 2020 - Sep. 2020

- Built an distributed file uploading and downloading system with **ZooKeeper**, **Apache Kafka**, and **Java** and deploy it to **AWS EC2** Cloud, also realized **load-balancing** to handle client requests.
- Applied Multi-threading, leader-election, failure detection, auto-scaling and auto-healing algorithm to the system.
- Implemented a **sharded and distributed storage** system with **MongoDB**, also launched a data replication set of it.

### Doodos - Graffiti Hub for Street Artist & Fans - Silicon Valley, CA

Apr. 2020 - July 2020

- Built a social hub for graffiti fans to write posts, like & comment on other people's, buy artworks and see their locations.
- Developed the user interface with **React.js**, **Webpack** and **reusable UI component** as **NPM modules**
- Used **Node.js**, **Express** to construct the web frame, **Mongoose & MongoDB** to build a database on **AWS** cloud, achieved user authentication with **Express-validator** and **JWT Web token**, encrypted user information with **Bcrypt**
- Built an online store and built its payment system with **Paypal-REST-SDK** to handle users' payment and orders
- Rendered maps of artworks' locations with markers & info windows with **Google Maps API & EJS** from the server-side

### eCommerce Retail Platform - Silicon Valley, CA

Jan. 2020 - Mar. 2020

- Designed Database tables with **MySQL Workbench**, built JPA Entities with **Java & SpringBoot** created the backend **REST APIs** with Spring Data JPA Repositories & Spring Data REST
- Realized functions with **Angular** which include pagination, search by keyword, search by category, checkout validation, and also components including product, shopping cart, and checkout form
- Applied **Bootstrap**, **CSS**, created **TypeScript components** on HTML templates to format the front-end User Interface

## EXPERIENCE

### Northeastern University - Silicon Valley, CA

Aug. 2020 - Present

Graduate Teaching Assistant for **Algorithm**

- Designed and led mini-lectures on various algorithm topics including Divide & Conquer, DFS, BFS, Graph Theory, and Dynamic Programming etc, which received strong positive feedback from a class of 40 students

### Wuhan University Alumni Association of Northern California - San Jose, CA

Jan. 2020 - Apr. 2020

Full Stack Web Engineer (voluntary), URL: [wuhanuniversity.org](http://wuhanuniversity.org)

- **Increased** server query response time by **15%** by **restructuring the API** with **Python** and **Flask**, and built the donation function with **Paypal-REST-SDK**, deploy ahead of the schedule by one week, after the COVID19 outbreak in Wuhan
- Optimized the web page layout with **React** and make it responsive to different devices with **Bootstrap**

### China Architecture Design & Research Group - Beijing, CN

June 2018 - Sept. 2018

Intern Computational Designer

- Optimized the tile tessellation pattern on large span curved roof with **Python & Grasshopper** (a visual programming tools) which **saved** the construction cost by **20%**
- Regularized the form of large span curved roof of WenAn Cultural Complex Center with Self-Adaptive Differential Algorithm with **C# & Grasshopper** to make it buildable