

# Tong Miao

SEEKING FOR FULL-TIME SOFTWARE DEVELOPMENT ENGINEER

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## Work Experience

### Funpins Co.

Los Angeles, CA

MOBILE APPLICATION DEVELOPER INTERN

Feb. 2020 - Present

- Building the map-based **Android** application, which can be used to add some attraction to the map and share it.
- Contributed **RESTful APIs**, including add pins, sign-in of a new user, comment, and so on. Developed the backend server based on the **Firestore** and **Django**.
- Refactored the origin code by using a new design pattern, **MVVM**, and Completed a Feature called Community, including create, edit, and put posts there.
- More than 2000 user is using this application, and the user number increased 60% after the Community feature.

### IQIYI Intelligence Technology Co., Ltd

Beijing, Beijing

FULL-STACK SOFTWARE ENGINEER INTERN

May. 2019 - Aug. 2019

- Worked in the **Java** backend group, focused on Content Management System, an internal utensil terminal that manages web content, allowing multiple operations staff to create, edit and publish.
- Accomplished the tag group management through **React, Spring Boot, Mybatis, MySQL**: different tags can be combined to tag group, enhancing 50% efficiency to added, edited, deleted tags.
- Added one feature: Filling the notification through the background management system, storing them to ES, and push that notification to devices according to their OS version, hardware type, and SN. Using **Spring Data, Redis, Elastic Search** to connect the database and the front page.
- Deployed the frontend and backend to **Docker**, and used **Gitlab CI/CD, Jenkins** tools improving the efficiency of deployment in 70%.

## Projects

### Weenix: Mini Operating System

Jan. 2020 - May. 2020

- Implemented **Processes** and **Threads**: create/exit threads and processes, switch context, kernel mutex for mutual exclusive.
- Accomplished **Virtual File System**: a lot of file modification instructions, using polymorphism feature to be compatible with different actual File System
- Implemented **Virtual Memory**: Writing codes to map the virtual address to virtual memory, handle **page fault**, and using shadow objects to handle the **Copy-on-Write** mechanism.

### Weather Forecast: Web & Android development

Aug. 2019 - Dec. 2019

- Constructed a **Angular** web application that can get forecast and detailed weather of any location around the world.
- Created features of auto-complete city's name, share, add to favourite, **Responsive Design, RESTful API**
- Enriched google/twitter/ip-api/DarkSky APIs, **Angular8, Android, Node.js, Express.js, AWS, Responsive Design**.

### Home website of USC CGSA: Web development

Nov. 2018 - Avg. 2019

- As a leader of this association, designed and implemented the home page and the website of CGSA using **Angular** and **Node.js**
- Built a function to acquire users' related information and send it during certain period, using **cron** and **Express.JS**
- Cooperated with a team of 7 to completed the backend of website, used over 100,000 times until now.

## Education

### University of Southern California (USC)

Aug. 2018 - Dec. 2020

M.S. IN COMPUTER SCIENCE

GPA: 3.81/4.0

### Tianjin University (TJU)

Sep. 2013 - Jul. 2017

B.S. IN ELECTRICAL ENGINEERING

GPA: 3.61/4.0

## Skills

**Programming** JAVA, C/C++, Node.js, Python, Android

**Back-end** Spring, Spring Boot, Mybatis, Redis, Elastic Search, rabbit MQ, MySQL, Express, Django, REST API

**Front-end** HTML5, CSS3, JavaScript, Angular 8, Bootstrap 4, Vue, jQuery, Hugo

**DevOps and others** AWS, Docker, Git, GitLab CI/CD, SolidWorks, 3D printing