**Haozhe (Alex) Zhang**

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**EDUCATION**

**University of Southern California**

**Master of Science in Computer Science**, GPA 3.75/4.00January 2022–May 2023

**University of Florida**

**Master of Science in Management,** Combined Degree, GPA 3.56/4.00January 2020–August 2021

**University of Florida**

**Bachelor of Science in Computer Science,** Cum Laude, GPA3.62/4.00 August 2016–December 2020

**TECHNICAL SKILLS**

**Frontend/Mobile Development:** JavaScript, TypeScript, HTML, CSS, Less, Tailwind, React, Next.js, Redux, MobX, RxJS, React Native, Spring MVC, Thymeleaf

**Backend Development**: Node/NestJs/Egg.js, Python, Java, Spring Boot, Spring Security, Flask, Redis, Kafka

**Databases**: MySQL, Firebase, MongoDB, MyBatis, Hibernate, Sequelize, Redis

**Machine Learning**: Pandas, Numpy, PyPlot, Seaborn, Sklearn

**INTERNSHIP EXPERIENCE**

**Schlumberger** May 2022–August 2022

*Software Developer Intern | Schlumberger-Doll Research* Cambridge, MA

* Created a backend management module with **React** to monitor current status of company’s visualization platform.
* Refactored platform’s Logplot with **INT GeoToolkit APIs**, allowing users to visualize multiple logs within one single track.
* Redesigned controller mechanism for geographic 3D visualizer renderer written in **Three.js** for better user experience.
* Revamped development and testing experience by transplanting existing 13 unit test cases from Linux to Windows.

**Meta Force, LLC.** March 2022–May 2022

*Software Developer Intern*Beverly Hills, CA

* Developed company’s official website with animations and responsive design with **React**, **Redux**, **Tailwind**, and **Vite**.
* Built and hosted multiple official websites of company’s NFT products on Heroku, leading to a profit of $10 thousand.

**Xiaomi** September 2021–December 2021

*Software Developer Intern & Intern Interviewer | Department of MIUI Experience*Beijing, China

* Developed multiple sections for MIUI 13’s official website (miui13.home.miui.com/tv) with **Next.js** and **Tailwind**, and adjusted visual effects to match department’s changing expectations and achieved 1 million DAU.
* Boosted operations team’s work efficiency by developing splash screen and product library management modules for Xiaomi Community’s backend with React to enable automated splash screen and product management.
* Carried out new APIs for Xiaomi Group’s privacy policy management platform with **Egg.js** and **MySQL-Sequelize**, enabling administrators to access published privacy policies and publish new policies through server to clients, etc.
* Enriched animation solution pool by analyzing and reproducing animations on Apple MacBook Pro's official website.

**Alibaba** May 2021–August 2021

*Software Developer Intern | Alibaba Cloud Utility Products Business Unit*Hangzhou, Zhejiang, China

* Expanded functionality and improved usability of Alibaba Cloud by implementing new features, varying from constructing the Advanced Features page of VPC to carrying out the VSwitch change-of-binding module of VRouter-Table, resulting in an indirect increase in revenue of $0.2 million.
* Devised a code generation solution with **React.js** and **Handlebars.js** in order to enhance efficiency and ensure efficient throughput of large frontend development teams.
* Wrote automated test cases for DHCP Options Set and Smart Access Gateway and created tutorial documentation to improve new employees training efficiency by 20%.

**PROJECTS**

[**Nowcoder**](https://github.com/rrrrr4788/nowcoder) December 2022–January 2023

Engineered and hosted a social media application with **Spring Boot**, **Spring MVC**, **MySQL**, **MyBatis**, **Redis,** and **Kafka**.

* Implemented user login, profile settings, direct message, post, comment, like, and follow modules via **Spring MVC, Spring Boot**, **Spring Security**, **Thymeleaf,** **MyBatis**, and **Redis** including email activation, **Kaptcha** generation, etc.
* Devised system notifications for user like, follow, and comment events by utilizing **Kafka** to achieve a fast response.
* Deployed the project on a **Google Cloud** e2-medium instance hosted at http://35.184.221.134/.
* Utilized **Quartz** to recurrently calculate post rankings every 5 min and **Caffeine** to enhance program efficiency via caching.
* Integrated **Spring Boot Actuator** and **Spring Security** to expose project endpoints and calculate UV and DAU of the site.

[**Humming**](https://github.com/Gnoseil/Humming)April 2020–September 2020

Programmed a mobile application simulating delivery service via drones and robots within San Francisco in the Agile fashion.

* Engineered all 7 screens to provide functionalities of user authentication, solution planning, order creation, status tracking, profile information modification, etc., with **React Native** and **Firebase**.
* Enhanced user experience by integrating polyline drawing, route computation, coordinate translation and payment services.
* Devised APIs for order creation and management, payment information generation and validation, and address management.

**InMotion** November 2019–September 2020

Engineered a real-time web app in order to analyze human facial expressions from webcam and video by sorting emotion data into 7 categories and displaying data with a visual diagram.

* Constructed user authentication module with **Node.js**, **Express.js**, and **Mongoose**, and blurred user auth info with **JWT**.
* Applied **Firestore** to store facial expression data uploaded every 100 frames for further facial expression analyses.