# **Alex Zhang**

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## **EDUCATION**

**University of Southern California** 

Master of Science in Computer Science, GPA 3.75/4.00

University of Florida

Master of Science in Management, Combined Degree, GPA 3.56/4.00

**University of Florida** 

Bachelor of Science in Computer Science, Cum Laude, GPA 3.62/4.00

January 2020-August 2021

January 2022-May 2023

August 2016–December 2020

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# 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**Software Developer Intern | Schlumberger-Doll Research

May 2022-August 2022

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.
Software Developer Intern

March 2022–May 2022 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 December 2022–January 2023

 $Engineered \ and \ hosted \ a \ social \ media \ application \ with \ \textbf{Spring Boot}, \ \textbf{Spring MVC}, \ \textbf{MySQL}, \ \textbf{MyBatis}, \ \textbf{Redis}, \ and \ \textbf{Kafka}.$ 

- 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

  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.