Brandon Zhang

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EDUCATION

University of Southern California
Master of Science in Computer Science, GPA 3.8/4.0 — January 2022–December 2023
University of Florida
Master of Science in Management, Combined Degree, GPA 3.6/4.0 — January 2020–August 2021
University of Florida
Bachelor of Science in Computer Science, Cum Laude, GPA 3.7/4.0 — August 2016–December 2020

TECHNICAL SKILLS

Frontend/Mobile: JavaScript, TypeScript, HTML, CSS, Less, Tailwind, React, Next.js, Redux, MobX, RxJS, React Native, Spring MVC, Thymeleaf
Backend: Java, Spring Boot, Spring Security, Nginx, Tomcat, Kafka, Go, Hertz, Node, NestJs, Egg.js, Python, Flask
Databases: MySQL, Firebase, MongoDB, MyBatis, Hibernate, Sequelize, Redis, Gorm
Machine Learning: Pandas, Numpy, PyPlot, Seaborn, Sklearn

PROJECTS

TikTok — January 2022–Present
Led a team of 8 engineers to rebuild a simplified version of TikTok's backend using **Golang**, **Hertz**, and **Gorm**.
- Integrated the team by coordinating development progress, distributing tasks strategically, and devising workflows.
- Constructed the scaffold of the project and implemented the video module, including video feed, storage, and publication with **Go**, **Hertz**, **Gorm**, and **Amazon AWS S3**.

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 — 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.

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 (archived at miui13.home.miui.com/tv) with **Next.js** and **Tailwind**, and adjusted visual effects to match department's changing expectations and achieved more than 1 million DAU.
- Boosted operations team's work efficiency by 30% via developing splash screen and product library management modules for Xiaomi Community's backend with **React** and **Umi.js** 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%.