

ZIHENG LIU

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EDUCATION

Bachelor of Science: Computer Science

University of California, Irvine | Irvine, CA

- Lab tutor & Certified Learning Assistant for Donald Bren School of Information and Computer Science (2021-2023)
- GPA: 3.78/ 4.0, Major GPA: 3.83/ 4.0, Dean's List 2020-2023

SKILLS

- **Certs:** AWS Certified Cloud Practitioner
- **Programming:** Python, C++, Java, JavaScript, Typescript, HTML, Swift, SwiftUI, PHP, RESTful API, Http/Https
- **Databases & DevOps:** MySQL, PostgreSQL, MongoDB, AWS, Jenkins, Docker, CI/CD, Git, Tomcat, Ajax, VM, Apache, Nginx

EXPERIENCE

Jun 2023 - Current

Software Engineer Intern

Panasonic Avionics - Irvine, CA

- Developed software tools Auto-git and Gitinator to streamline the automation of migrating source code repos, commits, and tags history from svn to git.
- Created TF-Historian, automating the migration of databases from TeamForge PostgreSQL and svn logs to Historian MongoDB. Set up scheduled CI processes using GitLab Runner and docker container for ongoing data migration.
- Utilized various unit-test frameworks like Pytest, Jtest, and Bash to create extensive test scripts, ensuring project quality.
- Engineered reliable CI/CD pipelines with GitLab and Docker for automated testing, building, and deploying of various applications for various projects, achieving CI maturity level 3.

Sep 2022 - Current

Student Web Developer

UC Irvine School Of Medicine - Irvine, CA

- Optimized and minified HTML, CSS, and JS code for UCI Conte Center websites, achieving over 60% performance improvement.
- Elevated sites' SEO score from 60 to 92, resolving both performance and advanced SEO issues.

May 2022 - Jul 2022

Software Engineer Intern

Personable Inc - Fountain Valley, CA

- Compiled daily reports on software testing, contributing to the development of Personable's flagship software, ScanWriter.
- Participated in the redesign and implementation of over 30% of the company's existing websites using WordPress and JavaScript frameworks.

PROJECTS

Fabflix Web App & Android App, 05/2023 (Java, Javascript, MySQL, HTML, CSS)

- Engineered a robust full-stack movie e-commerce platform, featuring distinct customer and employee interfaces, advanced search, and secure checkout. Hosted on AWS EC2 and Google Cloud Platform with elastic load balancer, increased reliability, and scalability significantly.
- Designed a seamless employee interface for movie uploads and database management. Implemented MySQL master-slave replication, achieving a 99.5% uptime.
- Conducted scalability testing with JMeter, improving platform efficiency by 20%. Integrated security measures like Google reCAPTCHA and HTTPS using Apache and SSL/TLS certificate.

HealthyLand IOS APP, 05/2023 (Swift, SwiftUI)

- Led the development of HealthyLand, an all-in-one iOS app for health and fitness. Incorporated indexing search, improving data access speeds.
- Integrated IOS Authentication Services framework for user logins, utilized HealthKit, Eventkit, Goggle Firebase, and machine learning APIs for personalized food recommendations and workout scheduling. Enhanced user experience with features like calorie, heart rate tracking and dynamic food recommendations.

UCI Anteater Search App, 03/2023 (Python)

- Created a MacOS search engine optimized for UCI-specific queries. Enhanced search efficiency by 40% using custom crawler trap detection .
- Employed text processing libraries like NLTK and bs4, and implemented a Vector Space Model with tf-idf for optimal ranking.
- Managed a MongoDB cloud database containing 190,000+ term indexes, supporting robust and fast search capabilities. Optimized algorithms to cut search latency from 500ms to 200ms.