

Kaixiang (Lucas) Zhuang

Irvine, CA 92618 | zhuangk2@uci.edu | (714) 306-8506

Education

University of California, Irvine

Expected Graduation Date: Jun 2026

B.S. in Computer Science; B.S. in Business Information Management

GPA: 3.86/4.0

Skills: C++; Python; Java; JavaScript; HTML; MySQL; Embedded Software; Database and Web Applications; Information Retrieval; Data Management; Data Structure; System Design; Computer Organization; Probability; Data Analysis; Linear Algebra; Discrete Math.

Experience

Fabflix.Life

Software Engineer

Irvine, CA

Sep. 2024 - Present

- Technologies Used: Docker, Kubernetes, Tomcat, Connection Pooling, MySQL Clusters, JDBC, HTTPS, APIs, jQuery, Apache, git, AWS, jMeter, reCAPTCHA, ETL pipeline, Java, JavaScript, AJAX.
- Built full stack architecture from scratch. Setup AWS instance, MySQL, Tomcat, Docker, Kubernetes, imported a large database of movie information, and created a new Github repository.
- Comprised 20 medium features, e.g., fully functional website that displays a catalog of 1000s of movies, cart checkout backed by sessions, secure login using SHA256 hashing, full-text search and auto-complete backed by a cache, bot detection using reCAPTCHA.
- Improved website performance 44% by implementing optimizations including: MySQL connection pooling, MySQL replication, Apache load balancing. Deployed Containerized version of the project on a Kubernetes cluster spanning multiple AWS instances.

University of California, Irvine

Software Engineer

Irvine, CA

Jan. 2024 - Mar. 2024

- Contributed over 40% of a Search Engine project in Python. Led a team of 3 to develop a search engine project.
- Implemented an Inverted Index using n-grams, enhancing search efficiency and accuracy, storing 1.88 million indices on MongoDB.
- Applied TF-IDF (term frequency by its inverse document frequency) scoring and HTML tag analysis for SEO, improving search result rankings and arranging 55,000+ websites across 80+ domains.
- Designed a custom web crawler with mechanisms to avoid infinite redirects and calendar traps, indexing over 370,000 websites. Used BeautifulSoup to parse HTML and XML documents and handle malformed markup, ensuring accurate data extraction.

Insigma Technology

Software Engineer Intern

Hangzhou, China

Aug 2023 - Sep 2023

- Enhanced an Enterprise Credit Risk Assessment Model by applying One-Hot Encoding and Matrix techniques, reducing model noise by 20% and improving predictive accuracy.
- Developed an NLP-based legal text parser using Jieba, processing 2,000 legal entries monthly and improving regulatory text analysis.
- Automated data collection and preprocessing across .gov platforms with DolphinScheduler, enabling Named Entity Recognition (NER).
- Performed data cleansing and analysis using SQL, NumPy, and Pandas, leveraging databases like MySQL, ClickHouse, and ODPS for efficient data management.

University of Southern California ISI

Research Intern

Marina Del Rey, CA

June 2021- Sep 2022

- Enhanced NLP tools to optimize data linkage and extraction from hyper-relational knowledge graph with Pedro Szekely's AI team.
- Performed error analyses, identifying key data mismatches and inaccuracies, resulting in a 13% improvement in KGTK model accuracy.
- Designed automated scripts for processing and validation, tested the model on 1000+ datasets to ensure reliability and scalability.

Leadership Experiences

US Overseas Student Union

Vice President

Arcadia, CA

Oct. 2022 - Present

- Expanded an organization from 50 to 284 members, managing a team of 25 and collaborating with city councils, mayors, celebrities, companies, international organizations, and other non-profit organizations.
- Recognized for leadership by the California Legislature Assembly, City of Walnut, and City of San Gabriel; selected by the Chinese Embassy to witness the APEC (Asia-Pacific Economic Cooperation) meeting and President Biden and Chairman Xi's welcome ceremony.
- Co-hosted high-profile events like Miss Asia International and the Huading Awards (400+ attendees) and organized an academic forum with USC Keck School of Medicine, featuring 50+ experts, including a Nobel Prize Winner (2013).
- Founded 27 student associations across the U.S., impacting 10,000+ Chinese international students, with focuses on Southern and Northern California, New York, and Boston.