JACKY XIA

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Education

University of California, Irvine

Sep 2021 - Jun 2025

Bachelor of Science in Computer Science | GPA: 3.63

Irvine, CA

Relevant Coursework: Data Structures, Algorithms, Database Management, Computer Networks, Operating Systems, Systems Programming, Computer Architecture

Experience

UC Irvine Jul 2023 – Sep 2023

Software Engineer Intern

Irvine, CA

- Supervised by **Prof. Chen Li**, the Director of ICS Master of Computer Science Program.
- Built a Flask app for third-party users to upload workflows via API on a WordPress site on GCP.
- Implemented dynamic container orchestration, reducing server costs by 20% and enabling instant API-driven workflows.

UCI Course, ICS 31: Introduction to Programming

Sep 2023 - Present

CS Course Laboratory Tutor (Learning Assistant)

Irvine, CA

- Guided 40+ students in an introductory Python course, offering targeted advice on improving their code.
- Employed innovative teaching methods to assist students with advanced topics such as **Asymptotic Analysis**, **Databases**, and **Functional Programming**, resulting in **93**% of students passing with a C or higher.
- Analyzed student learning gaps via weekly labs, boosting the instructor's RateMyProfessor 5.0 ratings by 20%.

Projects

<u>Texera</u> | Scala, Java, TypeScript, HTML, Python

Sep 2023

- Engineered a collaborative data analytics platform that now serves over **4,000** global users across various industries.
- Introduced data visualization operators, optimizing data processing speeds by approximately 10%.
- Expanded unit test coverage for a Scala-based system service, improving line coverage by 15%.

Global Airport GUI | Python, SQLite3

Aug 2023

- Developed a Python-based GUI for travelers to access data on 75,880 global airports.
- Centralized data with SQLite3 for efficient airport queries.
- Employed inheritance principles that reduces repetitive code by 30%.

TA-Class Matching System $\mid C++$

Jul 2023

- Developed an efficient matching algorithm that optimized pairing based on mutual preferences of TAs and professors.
- Implemented data structures including generic queues and hash maps, handling complex preference permutations.
- Designed rigorous unit tests that demonstrates a 100% success rate in maintaining assignment and preference stability.

Breakout Game | HTML, CSS, JavaScript

May 2023

- Designed and implemented a Breakout game utilizing HTML5 Canvas and JavaScript, featuring real-time gameplay.
- Crafted a fully responsive UI enriched with interactive elements using advanced CSS3 techniques.
- Engineered real-time scoring algorithms and dynamic brick layout algorithms to provide an engaging user experience.

Technical Skills

Languages: Python, HTML, CSS, JavaScript, TypeScript, Java, Scala, SQL, C++

Technologies/Frameworks: Git, Linux, React, REST API, Docker, Kubernetes, WordPress, Google Cloud Platform

Leadership / Extracurricular

UCI Chinese Students and Scholars Association

Apr 2022 – Present

Vice President

University of California, Irvine

- Led organization of 100+ members to work towards the goal of improving the lives of Chinese students academically and socially by hosting comprehensive workshops and panels for resume review, interview prep, and social networking.
- Managed board of 13 members and ran weekly meetings to oversee progress of organization's 7 committees.
- Secured partnerships with 10+ local businesses for event sponsorships, enhancing the organization's resources.