

Yihong(Hazel) Yu

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EDUCATION

University of California, Irvine

Expected Graduation: Fall '25

B.S. Computer Science.

Junior | GPA: 4.0

- Coursework: Python, C/C++ Programming, Data Structure, Algorithm, Intro to AI, Programming Languages
- Dean's Honor List for 5 quarters

SKILLS

- **Languages:** Python, C++, C, Java, JavaScript, TypeScript, HTML/CSS, Golang, LISP, Swift, SQL
- **Technologies:** React, Vue.js, FastAPI, TensorFlow.js, Chakra UI, MUI
- **Tools:** Git, GitHub, VS Code, Docker, Kubernetes, Xcode

EXPERIENCES

UC Irvine Office of Information and Technology(OIT)

Irvine, CA

Student Developer

May 2023 - Present

- Developed internal API tools and Chrome extension using React and FastAPI that assisted 20+ Help Desk staff's daily work and increased productivity.
- Maintained and updated OIT Help Desk managed databases and servers using Docker and Kubernetes.

UC Irvine Shi Lab

Irvine, CA

AI-driven Biotech Group Student Researcher

May 2023 - Present

- Utilized AI-driven model(SegNet, SAM) as the fundamental framework for cell image segmentation and detection to support upstream cell research.
- Developed a microscope control program using Python that serves for better microscope observation and automation.

UC Irvine Cloudberry Lab

Irvine, CA

QueryBooster Project Group Student Researcher

July 2023 - Present

- Improved QueryBooster, a middleware-based query rewriting tool, frontend interface by adding SQL query formatter and comparator using React.
- Migrated and maintained the QueryBooster backend server to Flask and Gunicorn.

PROJECTS

Rock-Paper-Stone-Lizard-Spock Hand Gesture Detection

React, Tensorflow.js, HTML, CSS, JavaScript

- Captured user hand gestures by React-webcam and classified using Tensorflow.js and Fingerprint library.
- Built the interactive web app using React and JavaScript and deployed through Github Pages.

ICS Search Engine

Python

- Designed a crawler with trap detection that scraped and parsed over 20,000 UCI ICS web pages, eliminating similar or uninformative webpages.
- Ranked the relevance of pages using the TF-IDF and indexing optimization algorithms, reducing query time to under 300ms.
- Developed a React web GUI interface to display the result and show short summarization of each result using OpenAI API.

OS Concurrency Simulator

Golang

- Utilized goroutine to simulate computer OS's concurrency process.
- Implemented semaphore structure to ensure accurate access to resources between threads.

LEADERSHIP

UC Irvine Donald Bren School of Information and Computer Science

Irvine, CA

ICS 31(Intro to Programming) Learning Assistant

March 2022 - Present

- Invited and selected by the professor to support the course for 4 quarters.
- Mentored 100+ students with core concepts and helped them build Python programming fundamentals.
- Graded and provided feedback for 200+ students' lecture assignments.