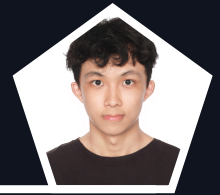# YUKAI GU

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📍 Irvine, CA, 92614

📄 LinkedIn Profile
Github Profile

🌐 Personal Website

EDUCATION

University of California, Irvine (UCI)

Bachelor of Science in **Computer Science**, Specialized in **Intelligent Systems**

Expected Graduation: **June 2025**

GPA: **3.907**

Completed **168/180** units

SKILLS

Programming Languages: **Python, C++, JAVA, Swift**

Web Development: **HTML, CSS, JavaScript, React.js**

Advanced: **AI Reinforcement Learning, Computational Photography, Web Crawler, 3D Reconstruction, Ray tracing, IoT, Procedural Planet**

Others: **Leadership, Mandarin, Researching, Quick Learner**

HONORS

 Apple Swift Student Challenge 2025 Winner

DEAN'S HONOR LIST

PROJECTS

3D Reconstruction by Structured light [2024]

- Utilized structured light techniques with two cameras and a projector to reconstruct objects into detailed 3D models.

- Designed and implemented the system setup, calibrated the camera, and triangulated the captured images to form the point cloud.

- Successfully created precise colored-3D models for objects such as Roadster, Mannequin, and Teapot.

Information & Computer Sciences Student Council – AntAlmanac [2024]

- Contributed to AntAlmanac, a course management platform designed to simplify academic planning for UC Irvine students.

- Acted as a developer and code reviewer, implementing new features, optimizing existing functionalities, and ensuring code quality.

- Enhanced the user experience and reliability of a widely used tool by thousands of students annually. (https://antalmanac.com)

P.R.O. Organization [2022]

- Founded a programming club dedicated to leveraging technology for social good, engaging members in learning and development.

- Led all aspects of the club, including organizing workshops, guiding coding projects, and supervising the creation of educational games. Oversaw the publication of tech articles and the development of the club website.

- Released 4 brain games, published 76 original technical articles, and successfully launched the club's website in Mandarin, fostering a community of tech enthusiasts. (https://stevenguyukai.github.io/PRO_Website)

RELEVANT_EXPERIENCES

1. Designed Micro-Mouse robot and its maze-solving algorithm (Link) [2022]

2. Designed and built my own version of **Shell** in C++ [2023]

3. Built a door locking **IoT** system which understand knocking patterns [2023]

4. Built a complete **Search Engine** from the ground up, showing the most relevant link with AI summary (Link) [2024]

5. Used **Heuristic algorithms** to solve monster sudoku boards (Link) [2024]

6. Designed algorithms for faster **ray tracing** speed [2024]

7. Developed a website to **streamline lab management** (Link) [2024]

8. Completed **cloth simulation** using Mass-Spring system [2025]

9. Designed an **IOS app** for people with **Alzheimer's disease** [2025]

10. Trained an AI agent for playing HANABI by **RMAPPO** approach [2025]

11. Developed a **realistic procedural planet** by three.js [2025]