## YUKAI GU

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Irvine, CA, 92614

<u>LinkedIn Profile</u>
Github Profile

Personal Website

#### **EDUCATION**

# University of California, Irvine (UCI)

Bachelor of Science in Computer Science, Specialized in Intelligent Systems

Graduation: Jun 2025

GPA: 3.89 / 4.00

### SKILLS

Programming Languages: Python, VB.NET, Java, C++, Swift

Web Development: **HTML**, CSS, JavaScript, React, PostgreSQL

Advanced: PyTorch, Chainlit, Reinforcement Learning, Computational Photography, Speaker Diarization, IoT, 3D Reconstruction, Web Crawling, Ray Tracing, Procedural Generation,

Language: Mandarin (Native), English (Professional)

## HONORS

**<b>★** Apple Swift Student Challenge 2025 Winner

#### WORK\_EXPERIENCE

#### **NEXTBYTE** | Founder

Irvine, CA (Remote)

Sep 2025 - Present

• Building an e-commerce platform and developing iOS apps

#### Personable Inc. | Software Engineer

Fountain Valley, CA

Apr 2025 - Sep 2025

- Improved the AI chatbot to handle very long context windows
- Optimized the ASR pipeline for 10+ hour audio files, improving speaker diarization and transcription quality

#### **PROJECTS**

#### Structured-Light 3D Reconstruction (2024)

- Utilized structured light techniques with two cameras and a projector to reconstruct objects into detailed 3D models
- Built color 3D models from 430 images (roadster, mannequin, teapot)

#### ICS Student Council – AntAlmanac (2024)

- Contributed to AntAlmanac, UCI's open-source course scheduling platform used by thousands of students each year
- Shipped new planner/scheduling features and resolved high-impact bugs; streamlined key flows to reduce user friction and improve reliability

#### P.R.O. Organization (2022)

- Founded and led a programming club focused on tech for social good; organized workshops, mentored project teams, and oversaw publication of technical articles and the club website
- Released 4 puzzle games, published 76 original articles

#### RELEVANT\_EXPERIENCE

- 1. Designed an **iOS app** to assist people with Alzheimer's disease (2025)
- 2. Trained an RL agent to play Hanabi using the **RMAPPO** approach (2025)
- 3. Developed a realistic **procedural planet** in Three.js (2025)
- 4. **Simulated cloth** with a mass-spring system (2025)
- 5. Built a **search engine** from scratch with Al-generated summaries (2024)
- 6. Developed a website to streamline lab management (2024)
- 7. Optimized KD-tree traversal to achieve 3.6× faster **ray tracing** (2024)
- 8. Built a door-locking **IoT system** that recognizes knocking patterns (2023)