

# Edmund Yau

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## EDUCATION

**UCLA, Samueli School of Engineering**  
**Degree:** Bachelor of Electrical Engineering

**Expected Graduation:** June 2025

## WORK EXPERIENCE

### Teacher

**Summer 2020-present**

*Engineering at American Chinese School*

- Guided and mentored a team of six enthusiastic students in conceptualizing, designing, wiring, and engineering four miniature robotic projects
- Developed and delivered a comprehensive, project-based summer school curriculum tailored for students ranging from Kindergarten to 5th grade
- Demonstrated strong organizational and planning abilities by creating and executing weekly lesson plans, ensuring a structured and dynamic learning experience for students

### Academic Intern

**Spring 2022**

*English 101c, Ohlone College*

- Collaborated one-on-one with students to enhance their learning capabilities within the classroom, providing personalized support and guidance to help them excel academically.
- Produced and distributed meticulously crafted, clear, and concise notes for each class session, aiding students in better understanding and retention of course material.
- Demonstrated writing and critical analysis skills by conducting peer reviews of numerous essays, offering constructive feedback, and ensuring students stayed on track with their assignments

## HIGHLIGHTED PROJECTS

### Amazon Clone Front-end Project

**Summer 2023**

*Front-end Project*

- Built an immersive and fully responsive user interface, mirroring the design and functionality of Amazon, showcasing proficiency in front-end web development.
- Leveraged advanced HTML and CSS techniques, including grid layouts for organizing Item/Cart libraries and flexboxes for the navigation bar, resulting in an intuitive and visually appealing user experience.
- Implemented dynamic functionality using the DOM to enable seamless item additions to the library. Leveraged local storage to persistently store and manage data, while creating reusable functions to enhance code efficiency

### Mancala AI

**Spring 2023**

*Smart AI player*

- Engineered a highly strategic AI player using Game Trees to analyze potential game positions, Evaluation functions to assess board states, and the Minimax algorithm to determine optimal moves.
- Designed a Smart AI player that consistently delivers exceptional performance, often resulting in a tie or victory, showcasing advanced problem-solving and AI development skills.
- Implemented a user-friendly interface with multiple difficulty levels, allowing players to engage in challenging matches against another person, a less sophisticated AI opponent, or the formidable Smart AI player.

### Path-Following Autonomous Car Project

**Fall 2022**

*Real-time Control and Automation System*

- Designed and constructed an autonomous path-following car using Arduino IDE and Texas Instruments Launchpad kit, demonstrating proficiency in hardware assembly and programming.
- Successfully implemented a sophisticated PID control algorithm in C++, utilizing real-time infrared sensor data to precisely manage the car's direction and motor speed, showcasing control system skills.
- Secured a remarkable second-place position in a competition by skillfully navigating the course in a time of 31 seconds

## SKILLS

**Languages:** C++, Java, Python, HTML, CSS, JavaScript

**Libraries:** Vite, Matplotlib, Numpy

**Software:** Solid Works

**Relevant Coursework:** Data Structures, Discrete Structures, Systems and Signals, Principles of Feedback Control, Digital Signal Processing, Differential Equations, Linear Algebra and Applications