

# Kenneth Ly

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## EDUCATION

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### California State University, Fullerton (CSUF)

Fullerton, CA

*B.S. Computer Science*

*Expected Graduation: May 2027*

- **Cumulative GPA:** 3.64
- **Activities & Societies:** Association of Computing Machinery
- **Coursework:** Data Structures, Object-Oriented Programming, Computer Assembly and Organization, Operating System Concepts, File Structure and Database, Software Engineering, Compilers and Languages

## PROJECTS

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### Sonar Scanner

*C++, Arduino UNO*

- Engineered a radar-style object detection system by programming an Arduino UNO in C++ to control an ultrasonic sensor mounted on a servo motor sweeping 180°, visualizing detected distances on a live radar interface
- Implemented real-time object mapping using ultrasonic sonar data processed via Arduino IDE and servo-driven angular sweeps, producing an on-screen radar visualization of surrounding obstacles.
- Optimized sensor sweep logic and data handling to reduce lag and improve accuracy of distance readings, enhancing clarity and responsiveness of the radar display.
- Integrated servo motor control with ultrasonic measurements to simulate radar scanning, creating an interactive visualization of nearby objects for educational and prototyping purposes.

### NASA APOD

*HTML, JavaScript, CSS*

- Built a web application that fetched and displayed NASA's daily Astronomy Picture of the Day by integrating the APOD API with asynchronous JavaScript through dynamic image rendering and error handling
- Improved the usability and accessibility of the interface by optimizing layout with CSS Flexbox and semantic HTML through responsive design and intuitive navigation

### Leftover Food Tracker (CSUF)

*Object-Oriented Programming, Git, Linux, C++, Backend*

- Built a leftover food tracking system capable of handling 100+ unique entries per report by applying Object-Oriented Programming principles through composition and inheritance
- Improved reporting accuracy by writing 10+ validation and aggregation functions through robust input handling and edge case detection

## CAMPUS INVOLVEMENT

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### Association of Computer Machinery

*Algo Member, Open Source Member*

- Participated in workshops focused on Algorithms, Leetcode, and Advanced Algorithms

## TECHNICAL SKILLS

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- **Languages:** C++, Python, JavaScript, HTML, CSS, x86 Assembly
- **Tools & Methodologies:** Git, React, Linux, Arduino, Agile, Scrum, Sprints