# Allen Boyce

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### **EDUCATION:**

## Loyola Marymount University

May 2026

B.S. of Computer Science

- Overall GPA: 3.64
- <u>Relevant coursework:</u> Data Structures and Algorithms, Algorithms and Analysis, Computer System
  Organization, Discrete Mathematics, Linear Algebra, Computer Graphics, Web App Development, Mobile
  App Development, Calculus I

### **TECHNICAL SKILLS:**

- Programming Languages: Java, Python, JavaScript, Swift, Kotlin, LUA, HTML, CSS
- Web & App Development: React.js, Node.js, Firebase, Phaser3
- Tools & Frameworks: GitHub, Figma, OpenCV
- Methodologies: Agile/Scrum, UI/UX Design, Data Analysis
- Other Skills: Strong problem-solving abilities, teamwork, public speaking, project management

#### PROFESSIONAL EXPERIENCE

## **Computer Science Teaching Assistant**

May 2024 - Present

Loyola Marymount University

- Assisted professors in Intro to Programming and Web App Development courses
- Provided one-on-one and group support for students with coursework and projects
- Graded assignments and provide constructive feedback to enhance student learning
- Guided students on best practices for using online tools and platforms

#### PROJECTS / ACTIVITIES:

### Project BitRush

September 2024 - Present

- Developing a top-down RPG-style rogue-lite web game using the **Phaser3** engine
- Implementing procedural level generation, character progression systems, and interactive gameplay mechanics.

## **Handwriting Neural Network**

**July 2024 - September 2024** 

- Designed and implemented a neural network for handwritten digit recognition
- Achieved over 97% accuracy with MNIST data set

#### Coven

November 2023 - Present

- Built a full-stack mobile and web application for household management using React and Firebase
- Focused on creating an intuitive and engaging UI/UX, using Figma for design prototypes
- Implemented a secure user authentication system using **Firebase Auth**, allowing users to seamlessly switch between web and mobile interfaces.

Asteroids

April 2023

- Led a team in recreating an advanced version of the classic Asteroids game using Pygame
- Developed core game mechanics including **movement** and **collision** systems.
- Created sprite assets and implemented sound effects to enhance user experience

# LiveShot

- Developed a real-time camera switching system using OpenCV and Python, integrating facial recognition algorithms to dynamically select the best camera angle based on facial positioning.
- Integrated the system with external digital camera interface software, enabling automated recording setups for live events.

## **EXTRACURRICULAR ACTIVITIES:**

Association for Computing Machinery, LMU Chapter
 Isang Bansa (Filipino-American Cultural Organization), LMU
 Alpha Psi Omega (National Theatre Honor Society), LMU Chapter
 February 2024 - Present

## **AWARDS:**

LMU Achievement Award