

Laurence Timothy Garcia

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Education

COMPUTER SCIENCE B.S. | 2020-2024 | CAL POLY POMONA, POMONA, CA

- GPA: 3.81
- Dean's List & President's List: All Semesters
- CPP Game Development Club - Secretary (21-22), President (22-23)

Skills

PROGRAMMING

- Java, C#, Python, HTML, CSS, Javascript, Kotlin, MIPS Assembly, GDScript

TOOLS

- Git/GitHub, Unity, Android Studio, THREE.js, Processing, Blender, Godot

Independent and Collaborative Projects

JAVA RAYTRACER STUDY | RAYTRACER | AUGUST 2022 – DECEMBER 2022

- Programmed a raytracer using the Java Processing library that can produce images consisting of various geometric primitives and combining them with a phong lighting model, reflections, and UV texture mapping.

KOTLIN ANDROID APPLICATION | [PROMINENT COLORS](#) | DECEMBER 2022

- Designed, programmed, and published an Android app that can take an image, from a photo gallery or the user's camera, and find the top 5 most used colors by pixel in the image.
- Programmed an algorithm that uses a HashMap to track and sort the colors and its frequency.
- Published on the Play Store and added interstitial advertisements when the user wants to scan another image.

FRONT-END WEB DEVELOPMENT | [PORTFOLIO WEBSITE](#) | JANUARY 2023

- Developed a personal website to present all my projects in one place. Hosted the site on GitHub Pages.
- Designed and programmed language using HTML, CSS, JavaScript, and implemented WebGL using the THREE.js API.

PYTHON MESSAGING BOT | [ALIGNMENT BOT](#) | JANUARY 2022

- Messaging bot that takes the user's last 100 messages and rates it on a morality system.
- Used Discord.py API to develop and deploy the messaging bot.

C# OBJECT-ORIENTED PROGRAMMING PROJECT | [WE PLAY TANKS! TANKS!](#) | SEPTEMBER 2021 – NOVEMBER 2021

- Led a team of 6 people to recreate Wii Play Tanks Minigame, a top-down 3D shooter, over the course of a semester.
- Programmed core mechanics such as movement, shooting, and enemy AI.
- Programmed internal level reader tool to help speed up development of levels.

JAVA PROCEDURAL GENERATION | MAZE GENERATION STUDY | DECEMBER 2022

- Programmed a modified version of Prim's algorithm to procedurally generate randomized mazes in Java.

Leadership

CPP GAME DEVELOPMENT CLUB | JUNE 2020 – PRESENT

PRESIDENT | JUNE 2022 – PRESENT

- Organized a series of panel interviews with various gaming companies, including Obsidian Entertainment, Sony Santa Monica, and Riot Games.
- Hosted a Halloween Themed Game Jam in October resulting in 7 games were created from the jam.
- Oversaw development of 7 game projects in Fall semester.

SECRETARY | JUNE 2021 – JUNE 2022

- Organized panel interviews with employees from Avenda Health and Dynamic Augmented Solutions.
- Collaborated with other universities to create the California Collegiate Game Jam in Spring 2022.
- Hosted various workshops to teach club members topics like movement in Unity, Blender, and GitHub Repositories.

Work Experience

REGISTRATION ASSISTANT | CAL POLY POMONA | JUNE 2022 – JULY 2022

- Assisted first time students at Cal Poly Pomona in registering for their classes.
- Communicate with students for appointments, check ins, and different parts of the College of Science.

GENERAL MERCHANDISE EXPERT | TARGET | JUNE 2022 – AUGUST 2022

- Manage inventory, restock shelves, and assisted customers to help find what they need.