Cristian Garcia

cristian.gspace@gmail.com   Hayward, CA   (510) 876-6808   github

EDUCATION

University of California, Irvine — Irvine, CA
Computer Science and Engineering | GPA 3.100 — 2021-2025
Relevant courses : Python Programming (ICS 31 - 33), C++ program (ICS 45C, 46C),
Linear Algebra (3A), Classical Physics (7C, 7D), Digital System/logic Lab (31, 31L)

Kipp King Collegiate High School — Hayward, CA
High Honors | GPA 3.8 — 2017-2021

PROJECTS

Colorful Graphs - C++

- Implemented a **interference graph data structure** to solve register allocation problems via graph coloring with the Welsh Powell algorithm. Capability to load a **complete graph** with 1000 vertices in under 10 seconds.

Black Hole Simulation - Python

- Developed a simulation using **Tkinter**, and utilized **inheritance hierarchies** to allow users to place planet-like objects which all behave/display slightly differently for distinct interactions.

Air Quality Check - Python, TCP/IP

- Incorporated **PurpleAir sensor API** with many other Python classes to check the air quality of areas surrounding users address.

Task App - Swift

- Created an **iOS application** using Xcode, prioritizing a intuitive design that can seamlessly adapt to various devices seizes.
- Conducted comprehensive testing to guarantee the app's stability, reliability, and optimal performance by utilizing **JSONEncoder** for a robust data storage and management system.

Personal Website - HML, CSS, JavaScript

- Developed a website to showcase my software projects and skills. Implemented JavaScript to add dynamic and interactive feature, and to incorporate third-party APIs and libraries.

WORK EXPERIENCE

Personal Tutor — January 2023 - PRESENT

- Provided Personalized one-on-one tutoring for two college students in Boolean Logic and Intro/ Intermediate Programming, resulting with an average of 92% across three classes.
- Strengthened communication and instructional abilities by tutoring two children in mathematics, focusing on foundational math concepts and problem-solving skills.

SKILLS

Fields of Interest: Algorithms, Artificial Intelligence, Robotics, Interstellar space
Languages: Python, C++, Swift, JavaScript, HTML, CSS, VHDL, RISC-V,
Developer Tools: Github, Xcode, Visual Studio, Clion, Eclipse, Ripes

CLUBS

Open Project Space - embedded programming with C++, integrated circuits — September 2022 - June 2023
Program held by IEEE, geared towards giving a hands on experience with embedded systems.
Built an interactive MP3 player, a weather station with wireless data capability, digital stopwatch, and an RC car.