

Edward Garcia

Los Angeles, CA 90063

(323) 229-2826

edward.g2141@gmail.com / www.linkedin.com/in/edwardgarcia323

EDUCATION

University of California Santa Cruz	2019 – June 2022
B.S. Computer Engineering	3.20 GPA
Pasadena City College	2015 – June 2019
A.S. Mathematics, Physics	3.00 GPA
A.A. Natural Sciences, Engineering and Technology	

WORK EXPERIENCE

Baskin School of Engineering – University of California Santa Cruz September 2021 – June 2022
Undergraduate Tutor

- Prepared one hour-long tutoring sessions for about 4 hours a week.
- Responded to logistics emails from students, professors, other tutors and other employees.
- Attended lectures and took detailed notes to help prepare for session planning.

PROJECTS

Fully Autonomous Robot Mechatronics Capstone

- Was part of a three-member mechatronics team tasked with programming and prototyping a fully autonomous robot from scratch within a five-week time constraint.
- Robot was able to detect 2 kHz signals emitted from towers, traverse a field while circumventing obstacles to reach the tower, and deposit a ping pong ball into the correct side of the tower by detecting an active track wire.
- Designed and soldered circuits on perf boards including a 2nd order Butterworth filter, beacon and track wire detectors, and power distribution board containing a 3.3V and 5V regulator and a 1.65V split rail buffer to supply a virtual ground.
- Involved interfacing with various sensors such as tape, bumper and IR sensors.
- Programmed in C on a PIC32MX320F128 microcontroller and features a fully functional hierarchical state machine for event servicing.
- Helped create and troubleshoot libraries for sensor and motor interfacing.
- Oversaw the project's embedded software aspect.

RESEARCH EXPERIENCE

Pasadena City College – Pasadena, CA September 2016 – June 2019
Undergraduate research assistant

- Researched self-assembly DNA nanotechnology.

- Undergraduate research assistant for Dr. Jillian, Blatti, Ph. D under the Catalyst Early Career Undergraduate Research Experience (eCURE) program at Pasadena City College.
 - Worked in a team of around 6 other students where we shared our findings and discussed ideas in order to come up with solutions.
 - Learned to prepare wet samples and operate an atomic force microscope (AFM) to view samples.
 - Modeled DNA nanostructures using computer aided design tool.
-

SKILLS

C programming language, C++, SolidWorks, laboratory safety and equipment, teaching, digital design, session management, team building, communication, technical writing, embedded programming, rapid prototyping, time management, Sensor interfacing