

MADDUX MADAYAG

madduxmadayag.github.io | linkedin.com/in/madduxmadayag | madduxmadayag@gmail.com

EDUCATION

University of California, San Diego (UCSD)

La Jolla, CA

B.S. ECE: Computer Engineering, GPA: 3.78

Expected June 2026

- **Relevant Coursework:** Data Structures and Object-Oriented Design (OOD), Programming Languages, Analog Design
- **Awards:** Provost Honors

EXPERIENCE

Avionics Engineer - Hayla

La Jolla, CA

Students for the Exploration and Development of Space (SEDS) @ UCSD

October 2023 – Present

- Recreated ESP32-Wroom-32UE and 1U schematic and board design to be utilized for other components of the rocket
- Designed a solenoid relay board to be utilized for recovery of the rocket
- Designed a parallel battery management system for three LiPo batteries utilizing the BQ76907 battery management IC to ensure proper powering to all the boards in the rocket during launch

Workshop Officer

La Jolla, CA

Keyboard Club @ UCSD

October 2023 – Present

- With 6 other officers, taught 45+ students how to build their own keyboard from scratch by SMD/through-hole soldering and operating CNC wood and laser engraving machines through weekly workshops and sessions
- Hosted my own one-off workshop to teach 16 students how to assemble and handwire their own macropad keyboard
- Coded the macropads' microcontroller firmware through QMK for functionality and Vial support to allow users to customize the keymapping

Self-Taught Animator

Davis, CA

Self-Employed Animation Business

2021 – 2023

- Collaborated with Steam users to create animations and rig images containing characters that captured the clients' vision and design intent
- Designed animated videos and animations for school projects; developing proficiency in After Effects and Photoshop
- Devoted 50+ hours gaining expertise in digital editing, video animation, and sequences, acquiring a profound grasp of the design process

Computer Builder

Davis, CA

4-H Computer Project

2018 – 2022

- Dedicated 40 hours deconstructing and rebuilding 20+ computers for donations in Yolo County
- Educated and helped members with building and taking apart computers and lead meetings to assist the project leader

PROJECTS

C-13X Hand Wired Mechanical Keyboard

Davis, CA

Independent

July 2023

- Created a custom mechanical keyboard that required understanding soldering diodes, matrix and controller wiring, and coding firmware in C to further my hobbyist creativity

IEEE @ UCSD Winter Quarterly Project

La Jolla, CA

Team Member

January – March 2023

- Collaboratively engineered and fabricated a fully functional bluetooth-controlled RC car

AWARDS

- Banatao Family Scholarship
- MaryAnn Wegner Memorial 4-H Scholarship
- Yolo County 4-H Leaders Council Scholarship

SKILLS

- Java
- C/C++
- Python
- Matlab
- GitHub
- Soldering
- LTSpice
- CNC machining
- Fusion 360