

Colin W. Huang

San Diego, CA, 858-997-8536, cwh004@UCSD.edu, www.linkedin.com/in/colin-w-huang, colinwhuang.github.io

PROFESSIONAL SUMMARY

Dependable team player and an enthusiastic learner who values dedication in all aspects of life. Capable of handling multiple tasks and challenges in a fast-paced environment. Demonstrated leadership and teamwork skills in engineering projects and in Robotics organizations.

EDUCATION

University of California San Diego, John Muir College, San Diego, CA 09/2021 - 06/2025

- Major: Mechanical Engineering with Specialization in Control and Robotics
- GPA: 3.90, Provost Honors

SKILLS

Software: AutoCAD, SolidWorks, Fusion 360, MATLAB Programming, Photoshop, Illustrator, Premiere, Blender, Revit, Java, Android Studio, HTML, Microsoft Office (Excel, Word, PowerPoint)

Machines: LaserCMM, lathe, milling machine, miter saw, circular saw, jigsaw, bandsaw, impact driver

WORK EXPERIENCE

UCSD School of Medicine, San Diego, CA

Student Lab Assistant, Joiner Lab

10/2022 - Present

- Researching to develop an optogenetics set-up using Arduino UNO and LEDs
- Utilized NIS-Elements software to correct AI identification of the central brain of fruit flies
- Prepared and sealed agar-filled vials with paraffin wax to prevent drying of fruit fly nutriment
- Responsible for flipping flies and maintaining organization of the vials on a regular basis

ENGINEERING PROJECTS

UCSD Triton Robotics Organization, San Diego, CA

Project Development Subteam

10/2022 - Present

- Designed a practice armor plate using Solidworks for the computer vision subteam
- Composed an assembly checklist detailing the armor plate's design requirements and fabrication cost
- Completed three weeks of training in SolidWorks, documentation, and engineering drawings

UCSD Introduction to Engineering Graphics and Design Course, San Diego, CA

Robot Project

04/2022 - 06/2022

- Collaborated with three team members to construct a robot that can lift objects 14 inches high
- Used Fusion 360 and AutoCAD to design and fabricate the rack and pinion lift
- Prepared risk reduction test cases and documented the design process in a technical report
- Conducted energy, power, and torque analyses to ensure a stable factor of safety (4.2) for the lift
- Consolidated and oriented the team's AutoCAD designs to minimize material waste during laser cutting
- Utilized a Gantt chart to coordinate responsibilities and to meet deadlines

Canyon Crest Academy: Advanced Engineering & Design Course, San Diego, CA

Infrared Demonstration & Frequency Stabilizer Project

09/2020 - 01/2021

- Led a team to construct a demonstration of William Herschel's infrared experiment as a learning tool
- Utilized optics and Snell's Law to test physical mockups and used Onshape to model a prototype
- Experimented with a lock-in amplifier and tunable laser in an Acetylene cell
- Researched and presented on complex spectroscopy-related concepts

Mobile App Development Project, San Diego, CA

06/2020 - 08/2020

- Published an Android random restaurant picker app ("Tummy Quest") on Google Play
- Self-learned Android Studio and developed the app in Java and HTML with two other team members
- Led the visual design and creative process using Adobe Illustrator

Canyon Crest Academy, San Diego, CA

Mechanical Team Member for FRC Team 3128 Aluminum Narwhals

08/2018 - 04/2020

- Utilized CAD blueprints to build playing field pieces
- Machined multiple copies of aluminum parts, spacers, and axles for the robot
- Worked with the milling machine, drill press, lathe, impact driver, miter saw, circular saw, and jigsaw
- Assisted in the repair process of the robot during competitions
- Mentored new members in operating machine tools in accordance with safety workshop procedures