

EDUCATION

University of California, San Diego

June 2023

Mechanical Engineering with Specialization in Robotics and Controls

3.778 GPA | ACES Scholar | NACME Scholar

SKILLS

Hardware:

Arduino

Computer Aided Design:

Inventor

SolidWorks

Fusion 360

Fabrication:

3D Printing

Soldering

Laser cutting

GD&T

Software:

MatLab

Python

Excel

Powerpoint

EXPERIENCE

Undergraduate Student Researcher | La Jolla, CA

Aug 2021 - Aug 2022

Gravish Lab - University of California, San Diego

- Developed initial research proposal by researching previous designs of biomimetic swimming robots
- Managed design and fabrication of swimming robot
- Utilized Fusion 360 to design 3D printed parts and laser cutter to cut acrylic parts

Undergraduate Student Researcher | La Jolla, CA

May 2021 - Aug 2021

Morimoto Lab - Contextual Robotics Institute at UC San Diego

- Managed design improvements of Laparoscopic Training Device (LTD)
- Utilized SolidWorks to design inexpensive, 3D printed parts for LTD
- Gained experience in rapid prototyping and taking into consideration cost-efficiency

Program Assistant | La Jolla, CA

Jan 2021- Jun 2023

UCSD IDEA Center - ACES Scholars

- Provided administrative support for the Academic Center for Engineering Success Program (ACES) and the Engineering Learning Communities (ELC)
- Communicated essential administrative information to 12 peer educators and 77 ACES Scholars
- Manages and organizes meeting times, workshops and socials for peer educators and scholars

The Gauntlet Project Team | La Jolla, CA

Aug 2019 - Sept 2019

CAD Manager

- Collaborated on an interdisciplinary team of 5 for 5 weeks to design and build a hub and control that allows for easier keyboard inputs for disabled people
- Managed and designed the central hub using solidworks and gained hands-on 3D printing experience
- Trained in Arduino RGB Color sensor functionality
- Presented project before a faculty judge panel in competition with other teams

Certified Trainer | Vista, CA

Jun 2020 - Jan 2021

Raising Cane's Chicken Fingers

- Trained 6 new employees to effectively complete position tasks and uphold company standards
- Ensured all daily tasks and goals are completed in a timely manner
- Obtained skills necessary to rapidly adapt to changes in task requirements and manage multiple tasks

Team Member | La Jolla, CA

Nov 2019 - Mar 2020

Canyon Vista Dining Hall

- Collaborated with over 80 interdisciplinary team members to provide efficient food service
- Learned how to implement safety regulations and requirements to ensure quality service
- Gained teamwork and communication skills through cross-cultural collaboration
- Obtained skills necessary to rapidly adapt to changes in task requirements and manage multiple tasks

Palomar Technologies | Carlsbad, CA

Sept 2018 - May 2019

Intern

- Created measuring procedure for proxy dots made by the 9000 Wedge Bonder using Keyence VHX-1000 digital microscope
- Trained in basic programming functions for wire bonding on the 9000 Wedge Bonder
- Obtained and analyzed pixel calibration data for three types of die bonding machines across three different years in order to find the reason for machine calibration failure
- Organized and presented data to a group of six engineers, including Chief Technical Officer, Daniel Evans
- Shadowed electrical and mechanical engineers as they addressed issues on the new 6532HP die bonder and gained insight on communication and collaboration between engineers of diverse fields

PROGRAMS

Society of Hispanic Professional Engineers at UCSD | La Jolla, CA

Jan 2019 - Present

Engineering Basics Project Team Member

- Trained in spatial visualization and how to interpret engineering drawings on Inventor
- Recreated various objects using only their drawing documents
- Designed themed chess pieces using a wide range of tools in Inventor

Lead Competition Prototype Designer | La Jolla, CA

Mar 2020 - Jun 2020

The Double-Double Project Team

- Managed and built competition and CAD prototype for a mechanical football kicker that utilizes a fixed amount of potential energy to score a 99-yard field goal
- Utilized Inventor McMaster-Carr to create the frame of CAD prototype
- Lead design of competition prototype and performed energy analysis on CAD prototype to demonstrate theoretical success

Jacobs Undergraduate Mentorship Program UCSD | La Jolla, CA

Oct 2019 - Present

Graduate Mentee

- Mentee to graduate student that provides guidance relating to courses, major or personal topics

CERTIFICATIONS

Introduction to Fusion 360 | Solidprofessor

Jul 2020

Fusion 360 Drawings | Solidprofessor

Jul 2020

Inventor Beginner to Certification | Solidprofessor

Jul 2020

Inventor Drawings | Solidprofessor

Aug 2020

RELEVANT COURSES

MatLAB Programming for Engineering Analysis | Mechanical Behavior of Materials |

Introduction to Robotic Planning and Estimation | Statics and Introduction to Dynamics |

Dynamics and Vibrations | Signals and Systems | Linear Control |

Thermodynamics | Advanced Fluid Mechanics | Introduction to Programming and Computational Problem-Solving