Nestor Ojeda

408-841-0136 | ojedanestor76@gmail.com | linkedin.com/in/nestor-ojeda | Project Portfolio

Education

University of California Irvine June 2022
Bachelor of Science in Mechanical Engineering, Specialization in Design of Mechanical Systems *Irvine, CA*

Experience

R&D Junior Project Engineer Intern Sep 2020 – Jul 2021
Bal Seal Engineering *Lake Forest, CA*

- Improved automated rotary fixtures for pressure testing using SolidWorks to reduce manufacturing times by 10%
- Designed in SolidWorks and manufactured a 3D-printed mount for a rotary encoder to track motor
- Programmed Arduino Mega to wire emergency system using an 8-channel relay module and MQ-2 gas sensor

Team Lead/Foods Associate May 2018 – Aug 2019
Cedar Fair Entertainment *Santa Clara, CA*

- Communicated with hundreds of guests per day as a cashier while serving and preparing food
- Assisted coworkers with maintaining the building and preparing the food while also keeping them motivated
- Supervised the building as Team Lead and planned schedules for associates while teaching them about the position

Projects

Bandsaw Blade Guide UX Senior Design Project Sep 2021 – Mar 2022
SolidWorks (CAD & Simulations), 3D printing (FDM), Bill of Materials, Bandsaws, GD&T

- Improved the blade guide design for Laguna Tool's bandsaw using SolidWorks to add less costly features by 20%
- Implemented self-locking worm gear to allow more precise adjustments and easier adjustability below the table
- Fabricated 3D-printed thrust bearing and blade guide using PLA High and Nylon to prototype on the bandsaw

Golf Ball Launcher Design Project Jan 2022 – Mar 2022
SolidWorks (CAD & Simulations), 3D printing (FDM), Arduino, MATLAB, GD&T, Wiring

- Manufactured an automatic golf ball launcher that can land ball in bucket between 10ft. and 20ft. at a fixed height
- Designed in SolidWorks launcher that uses rack and pinion to control the launch angle and the release mechanism
- Programmed in MATLAB to output angle (0°- 60°) for the launcher and for Arduino release mechanism
- Manufactured using 3D-Printed methods (FDM) and wired laser, braking sensors, and servos to Arduino

UCI Solids & Liquids Rocket Project Sep 2020 – Sep 2021
Open Rocket, Arduino, MS Excel, Bill of Materials, SolidWorks (CAD), Wiring, GD&T

- Designed a multistage rocket in OpenRocket to reach 50,000 ft and created bill of materials for concepts
- Assembled a Flight Computer using barometric sensors, breakout boards and programmed in Arduino
- Designed a 3D-model of the multistage rocket in SolidWorks considering various pressures and forces analyzed

S-Stem Pathways Pi-Car Project Jun 2021 – Aug 2021
CATIA, Raspberry Pi, Python, Wiring, Drilling

- Assembled a remote controlled car with braking sensors, servo motors, distance sensors and tracking sensor
- Programmed Raspberry Pi using Putty, VNC Viewer and Python to send instructions to sensors

Technical Skills

3D CAD/FEA: SolidWorks (CAD & Simulations), CATIA, Fusion360, On-Shape, Siemens NX, GD&T
Software: MATLAB, Arduino, Python, Microsoft Office (Word, PowerPoint, Excel)
Hardware: 3D Printing (FDM & SLA), Soldering, MIG Welding, Mills, Lathes, Bandsaws, Sanders, Drilling, Wiring
Certifications: CSWA Mechanical Design - Certified in SolidWorks - Issued in January 2021 ID:C-EWRZCV326G