

# Juan Hernandez

(818)-860-6248 | [juanh04@stanford.edu](mailto:juanh04@stanford.edu) | [www.linkedin.com/in/juanhjr04](http://www.linkedin.com/in/juanhjr04)

## EDUCATION

### Stanford University | GPA: 3.3/4.0

*Bachelor of Science Mechanical Engineering*

Stanford, CA

Graduation Date – June 2027

Relevant Coursework: Engineering Thermodynamics; Intro to Fluids Engineering; Solid Mechanics; Mechanics of Materials; Programming Methodology, Product Realization: Designing and Making; Dynamics

## WORK EXPERIENCE

### Northrop Grumman

Los Angeles, CA

*System Integration and Test Engineer*

June - August 2025

- Led a continuous improvement project to make next-generation test equipment backwards compatible, creating a backend program for four new test stations, improving reliability and reducing multi-hour test cycles.
- Conducted flight path simulations and analyzed MATLAB data to verify GPS and Internal Navigation System communication in extreme environments.
- Created and updated operational procedures and user guides to streamline testing processes and establish consistency for receiver testing.

## PROJECTS

### Stanford University

Stanford, CA

*Victorian Lantern*

March- June 2025

- Conceptualized, designed, and fabricated a Victorian-inspired lantern within a \$100 budget.
- Created an assembly design in Fusion 360, that guided an operation sequence for manufacturing.
- Balanced design aesthetics and manufacturability through low fidelity prototyping.

### UC Irvine

Irvine, CA

*RC Plane Design*

July 2022

- Rapid prototyped various aircraft designs to explore airfoil characteristics, and establish the most effective configuration for stability and performance.
- Collaborated with a team to finalize a design and create a functional RC plane over the course of one month.
- Utilized laser cut styrofoam to construct the plane's shell, then wired a battery pack, propeller, and receiver to enable powered flight and remote-control functionality.

### Stanford University

Stanford, CA

*Lightweight Bike Frame*

March 2025

- Created a detailed CAD model in Fusion 360 and performed FEA (Finite Element Analysis) to evaluate bending moments and stress distribution at key contact points.
- Conducted small-scale testing using a 3D printed model, comparing hand calculations with simulated material properties and stress data.
- Utilized results to write a report defending materials that meet the intersection of our design specifications.

## LEADERSHIP

### Stanford Axe Committee

Stanford, CA

*Financial Officer & Director of Social and Recruitment*

September 2023 - Present

- Managed a \$33,000 budget, across an academic year and helped allocate the budget between a large-scale rally, working with multiple student organizations and external vendors, as well as food and equipment for the club.
- Led recruitment of new members, and fostered a community by planning events and establishing an active line of communication between club officers and new members.

## SKILLS

MATLAB; Autodesk Fusion360; Python; Blender; Welding; Onshape; Spanish; Laser Cutting; 3D Printing; Rapid Prototyping; Design Sketching; Solid Works; Manual Mill; Manual Lathe