

James Notley

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EXPERIENCE

Highlander Space Program

Oct. 2023 – Present

Riverside, CA

Airframe Team Lead (May 2024 – Present)

- Built a four axis filament winding machine out of a 3D printer to produce fiberglass/carbon fiber airframe tubes at 10% the cost of the cheapest commercial option
- Wrote a CAM program to create toolpaths for the winder given layer thicknesses winding angles, mandrel geometry
- Identified and trained qualified applicants for Airframe team membership, three of my “hires” are now also in leadership
- Personally fabricated parts for competition launch vehicle including fiberglass body tubing and nosecone, many others

Airframe Engineer

- Designed and tested a (non-winding) process for the creation of large fiberglass nosecones at less than 20% market price
- Researched and evaluated suppliers for the selected composite materials to find the lowest cost solution

Woodward HRT

June – Aug. 2025

Santa Clarita, CA

Manufacturing Engineering Intern

- Implemented a tool coding system linking tool measurement and CNC devices on an industrial network to save \$20k in annual scrap cost per machine through elimination of manual offset error
- Procured and stood up a tool/program database software to synchronize the tool measurement and CAM libraries
- Built a spreadsheet application to automatically compare part status data between Sharepoint and SAP
- Designed and manufactured custom organizers for optimizing storage and assembly of fixturing equipment

S&S Machine

June – Sept. 2024

Roseville, CA

Machinist Intern

- Independently troubleshooted complex issues in new CNC programs on first run parts
- Interpreted technical drawings including GD&T to ensure part accuracy in production
- Assorted manual labor, cleaning

SKILLS

▪ CAD (any/all software)	▪ Materials selection	▪ Design for manufacture (CNC, composites, FDM 3DP)
▪ Metrology + GD&T	▪ Programming/scripting (Python, bash, VBA, SQL)	▪ Fabrication (above+brazing)
▪ Materials characterization		

EDUCATION

University of California - Riverside

Sept. 2023 – June 2027 (Expected)

Riverside, CA

B.S. Materials Science and Engineering

- 3.8 GPA

- Relevant coursework: Materials science labs, Mechanics of materials, Thermodynamics

Granite Bay High School

Aug. 2019 – June 2023

Granite Bay, CA

High School Diploma

- Built a network controlled robotic arm for an engineering and computer science capstone project
- President of the coding club, led a team to 2nd place in a regional programming competition