

# James Notley

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## EXPERIENCE

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### Highlander Space Program

Oct. 2023 – Present

*Airframe Team Lead (May 2024 – Present)*

*Riverside, CA*

- 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

*Manufacturing Engineering Intern*

*Santa Clarita, CA*

- 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

*Machinist Intern*

*Roseville, CA*

- 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

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|------------------------------|--|---|
| ▪ 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

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### University of California - Riverside

Sept. 2023 – June 2027 (Expected)

*B.S. Materials Science and Engineering*

*Riverside, CA*

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

### Granite Bay High School

Aug. 2019 – June 2023

*High School Diploma*

*Granite Bay, CA*

- 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