

# 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 to produce airframe tubes and fuel tanks by converting a 3D printer at 1/10th the cost of the cheapest commercial option
- Spearheaded the creation of a new member selection and onboarding process for three related teams to focus more on the skills necessary for success in the club
- Led the design and fabrication of a composite layup fin structure to prevent fin flutter and tearout
- Fabricated rocket parts (recovery charge wells, motor retention ring) using a manual lathe

*Airframe Engineer*

- Designed and tested a 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
- Conducted a trade study of proposed designs to determine optimal airframe material and configuration

### S&S Machine

June – Dec. 2024

*Machinist Intern*

*Roseville, CA*

- Fixtured, tooled and ran various metal (Al, Cu, steel) and plastic parts on CNC mills and lathes
- Independently troubleshooted complex issues in new CNC programs on first run parts
- Interpreted technical drawings including geometric dimensioning and tolerancing to ensure part accuracy
- QC'd/inspected complex part geometry using metrology such as calipers, micrometers, gauges, and CMM

### Lakeside Manufacturing

June – Sept. 2023

*Assembler*

*Rocklin, CA*

- Independently optimized workflow for maximum throughput and minimal downtime to meet deadlines
- Graded input material for, printed required markings on, and assembled hundreds of units per day
- QC'd and calibrated finished product to ensure their ability to be used in medical diagnostics

## SKILLS

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|--------------------------------|------------------------------|---------------------------|
| ▪ Fusion360                    | ▪ 3D printing                | ▪ Python/shell automation |
| ▪ Solidworks (w/ simulation)   | ▪ CNC machining / G-code     | ▪ GD&T                    |
| ▪ Metrology                    | ▪ Communication/leadership   | ▪ Excel/MS Suite          |
| ▪ ASTM standard interpretation | ▪ Materials characterization | ▪ Documentation           |

## EDUCATION

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### University of California - Riverside

Sept. 2023 – June 2027 (Expected)

*B.S. Materials Science and Engineering*

*Riverside, CA*

- 3.9 GPA
- Relevant coursework: Materials science labs, Thermodynamics, Statics, Physics

### 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