

# Andrew Gothro

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<https://andy-gothro.github.io/>

## Education

Current Junior at Gonzaga University  
BS Major in Mechanical Engineering, Minor in Physics

Graduation: May 2021

Henry M Jackson High School, Mill Creek, Washington GPA: 3.68

Graduated 6/17/17

## Work History

Tethers Unlimited - Engineering Intern

June-August 2020

- Designed and performed high-precision tests for experimental spaceflight operations.
- Produced full test report, in-depth analysis, and thorough documentation for an entire testing process.
- Updated existing tools and software to enable new kinds of manufacturing processes.
- Involved in re-qualification and improvement for proven SmallSat components.

Collins Aerospace - Materials and Flammability Intern

May-August 2019

- Developed cure process for new composite layup process.
- Produced engineering drawings and models for multiple projects using both Solidworks and NX.
- Developed testing procedures for material qualification.
- Assisted with detailed failure mode effects analysis for interior monuments for OEM customers.

Gonzaga University - Machine Shop lead

2017-2021 Academic years

- Assist with manufacturing a wide range of parts for various clubs and senior projects.
- Teach students of all backgrounds skills to design and create parts on their own.

September 2020-present

Boeing - High School Fabrication Summer Internship

June-August 2016

- Placed in the Innovation Center section of the Electrical Systems Resources Center (ESRC).
- Increased efficiency through prototyping of equipment for workers in an industrial setting.

## Skills

Solidworks

8 years' experience

- Designed parts, assemblies, and drawings for design planning and CNC machining.
- Experienced in bottom-up and top-down modeling as well as configurable parts.
- Certified Solidworks Associate

Microsoft Excel, Google Sheets

6 years' experience

- Created robotics team scouting algorithm.
- Used VBA programming for data input automation, sorting, filtering, and results output.

Additive manufacturing

5 years' experience

- Led a team to design and build a 5-axis FDM 3d printer, and adapt existing software to produce non-planar layers.
- Experience designing 3d printed parts for a wide variety of functional uses.
- Experienced in mechanical design specifically for optimizing parts for 3d printing

## Activities

Gonzaga SAE Baja Club (Technical design president)

2017-present

- Led design for steering, suspension, braking, and drivetrain systems.
- Optimized component geometry for off-road racing characteristics, durability, ease of manufacturing, and repair.
- Manufactured many components using manual and CNC metalworking tools as well as 3d printing.

Gonzaga ASME Rocketry club

2017-present

- Coordinated sub-system integration as integration team lead.
- Organized component layout and configuration.
- Prototyped both fiberglass and carbon fiber composite parts' layup processes.

Boy Scouts

2007-2017

- Eagle Scout, June 1<sup>st</sup>, 2017.

## References

Jack Williams  
Patrick Ferro  
Harrison Stankey