

**Kathryn A. Moskal**  
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## EDUCATION

**Cornell University**  
*Bachelor's in Mechanical Engineering*  
**Cumulative GPA:** 3.6/4.0

**Ithaca, NY**  
Expected, May 2028 (Currently Sophomore)

**Hall High School**  
*High School Diploma*  
**Rank:** No Rank **Cumulative GPA:** 4.3/4.5

**West Hartford, CT**  
June 2024

## SKILLS/INTERESTS

**Computer:** Ansys FEA, Ansys CFD, Blender, CAD Modeling (SolidWorks, OneShape, Fusion360), GitHub, Python, Scanning Electron Microscope, Microsoft Office, ImageJ/FIJI

**Technical:** Machining (Mill and Lathe), engineering analysis and design, data driven modeling, technical documentation, engineering drawings

## PROFESSIONAL EXPERIENCES

**ASTRA Lab, Cornell University**  
Research Assistant

**Ithaca, NY**  
August 2025 – Present

- Independently develop CAD designs (Fusion360, Blender, Onshape) for nanoscale propulsion emitter caps as part of a NASA sponsored lab
- Collaborate with a research team to 3D print, thermally harden, image with SEM, and analyze propulsion ability
- Analyze experimental data and present technical results at weekly lab meetings while following all safety protocols
- Assist with mechanical setup and troubleshooting of vacuum chambers and support efforts to restore functionality of an older mass spectrometer

**Design Build Fly, Cornell University**  
Mechanical Team Member

**Ithaca, NY**  
August 2025 – Present

- Design wing assemblies, elevator systems, and aircraft components using SolidWorks
- Perform mathematical analysis of aircraft flight and stability and document results in technical competition reports
- Use Ansys CFD and Ansys FEA to evaluate aerodynamic performance, structural behavior, and overall aircraft stability
- Collaborate with teammates to iteratively build, test, and manufacture aircraft components using 3D printed parts, laser cut wood, and carbon fiber prepreg

**Crush Wine Bar**  
Food Runner

**West Hartford, CT**  
May 2025 – August 2025

- Coordinated with kitchen and bar staff to deliver food and beverages efficiently in a fast paced environment

**Renbrook School Summer Adventure**  
Counselor

**West Hartford, CT**  
June 2022 – August 2024

- Led and managed groups of children, ensuring safety, structure, and positive group dynamics

## LEADERSHIP & ACTIVITIES

**Society of Women Engineers**  
Member

**Ithaca, NY**  
August 2024 – Present

- Engaging in a professional and social network for mentorship, outreach, and technical workshops
- Collaborating with peers to promote diversity, leadership, and professional development

**Particle Physics Lab**  
Member

**Ithaca, NY**  
December 2024 – May 2025

- Completed and planned an independent research project predicting muon trajectories for planet characterization
- Quickly adapted to new lab equipment and protocols, improving accuracy of experimental setup and data gathering

**Varsity Track and Field, Hall High School**  
Team Captain

**West Hartford, CT**  
September 2020 – June 2024

- Led team organization while balancing training, competition schedules, and academic responsibilities