

# Anna Schaldenbrand

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## EDUCATION

**Cornell University**, College of Engineering, Ithaca, NY

Bachelor of Science, Mechanical Engineering, German Studies Minor

Aug 2022 – Expected May 2026

*Relevant Courses:* Fluid Mechanics, System Dynamics, Spaceflight Mechanics, Heat and Mass Transfer, Mechanics of Materials, Dynamics, Statics and Mechanics of Solids, Thermodynamics, Robust Product Design, 3D Printing, Physics Waves and Oscillations, Physics Electricity and Magnetism, Physics Mechanics, MATLAB

**Technical University of Denmark (DTU)**, Kongens Lyngby, Denmark

Study Abroad Semester in Mechanical Engineering

Jan 2025 – May 2025

## WORK EXPERIENCE

**Whisker**, Auburn Hills, MI

Jun 2025 – Aug 2025

*Research and Development Product Design Intern*

- Contributed to early-stage R&D for robotics-based consumer tech products by developing and testing mechanical systems, using Creo and 3D prototyping to de-risk core mechanical features and define functional requirements during concept validation.
- Applied creative problem-solving and engineering judgment to open-ended design challenges, while strengthening prototyping skills and gaining exposure to the early stages of the product development cycle.

**National Aeronautics and Space Administration (NASA)**, Glenn Research Center, Cleveland, OH

Jun 2024 – Aug 2024

*Electrified Aircraft Powertrain Modeling Intern*

- Updated powertrain control models for NASA's hybrid-electric electrofan concept aircraft SUSAN to support carbon emissions reduction efforts.
- Developed and validated fault-testing simulations for electrical component failures and enhanced model fidelity using turbomachinery and control systems expertise in MATLAB/Simulink.

## UNIVERSITY EXPERIENCE

**Advanced Space Transit and Architectures Lab (AstraLab)**, Cornell University, Ithaca, NY

Aug 2023 – Present

*Undergraduate Researcher*

- Assisting graduate research on Secondary Ion Mass Spectrometry (SIMS) to study surface-ion interactions in electrospray propulsion for small satellites.
- Designed a high-voltage target assembly and electrostatic gate for vacuum chamber testing; recognized with the Bill Nye '77 Award for Undergraduate Research (Fall 2024).
- Built a small-scale electrospray propulsion demo using 3D printing and laser cutting.

**Solar Boat Engineering Project Team**, Cornell University, Ithaca, NY

Jun 2025 – Present

*Drivetrain and Steering Subteam Lead*

- Leading design and integration of drivetrain and steering system; managing subteam tasks and timelines for competition readiness.
- Guiding design improvements and overseeing manufacturing, assembly, and water testing.

*Drivetrain and Steering Engineer*

Oct 2022 – Jan 2025

- Supported design, manufacturing, and testing of outboard drivetrain and steering system for a 14-ft solar-powered boat; improved transmission housing for waterproofing, manufacturability, and assembly in SolidWorks.

**Women of Aeronautics and Astronautics (WoAA)**, Cornell University, Ithaca, NY

Aug 2023 – May 2024

*Event Coordinator Officer*

- Organized professional events to support undergraduate women and gender minorities pursuing aerospace careers and foster an inclusive on-campus community.

## TECHNICAL SKILLS

**CAD Programs:** SolidWorks, Creo Parametric, Autodesk Fusion 360, AutoCAD

**Programming:** MATLAB, Simulink, Python

**Industry Knowledge:** Rapid Prototyping, 3D Printing, Machining (Lathe and Mill), Laser Cutting