

ALISON CHAVEZ

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EDUCATION

Cornell University, College of Engineering

Bachelor of Science, Mechanical Engineering, Expected Minor: Aerospace Engineering

Ithaca, NY

GPA: 3.66

Expected May 2027

Coursework: Intro. Spaceflight Mechanics, Fluid Mechanics, System Dynamics, Mechanics of Engineering Materials, Statics, Thermodynamics, Waves & Oscillations, Data Science for Engineers, Object-Oriented Programming & Data Structures

SKILLS

Software: MATLAB, ANSYS Mechanical, Autodesk Inventor, Fusion 360, Vault, AutoCAD, NX, Microsoft Office, Solidworks

Technical: Linux, Jira, Agile, 3D Printing, 2D Drafting, CAM Modeling, CNC Milling, Lathe Operation, Soldering, Git/Github

Coding: Java, C++/C, Python, PLC, Bash, JavaScript, HTML, CSS

PROFFESIONAL EXPERIENCE

Proctor & Gamble

Cincinnati, OH

Family Care Engineering Intern

June 2025-August 2025

- Spearheaded installation and testing of new sealing pneumatic unit into wrapper test stand to enable R&D quality testing for new packaging films, iterating speeds and modifying HMI settings to identify burn temperature and seal failure metrics
- Executed wrapper operation to test 4+ film materials; authored PLM pre-startup inspection list for future unit operation
- Deployed method to automatically collect constant papermaking process data from PLC code to feed into internal website dashboard made to assist with future product decisions, increasing data collection by 120% and saving 50k per year
- Implemented Bounty pallet configurations database with 3D packaging tool to optimize patterns for 100+ product SKUs

Northrop Grumman Mission Systems

Linthicum, MD

Systems Engineering Intern

June 2024-August 2024

- Engineered C++ code to generate datasets and validate performance of high-precision math functions on CPU boards, enhancing unit test coverage and diagnostic speed via automated sweeps of input size and processing core allocation
- Benchmarked processor performance across remote Linux VMs, profiling throughput to inform board-level optimization
- Scripted data collection of 20+ signal processing math kernels using Bash, parallelizing tests over 20 CPU cores per board and parsing data using MATLAB and Excel to analyze data fluctuations and guide future system architecture decisions
- Collaborated with teams to identify, document, and discover firmware bugs to 60+ engineers, driving platform reliability

VA Space Grant Consortium

Hampton, VA

Summer Intern

June 2023-August 2023

- Assisted faculty during aerospace summer academies hosted at NASA Langley Research Center and Wallops Flight Facility
- Aided 120+ scholars with systems engineering design, conflict mitigation, inter-team collaboration, and networking
- Mentored groups of 12 scholars to design a habitat, life support systems, and spacecraft for a mock crewed mission to Mars

ADDITIONAL EXPERIENCE

Cornell Mars Rover

Ithaca, NY

Drives Subteam Member

October 2023-Present

- Design frame, electrical box, and camera mast components of a semi-autonomous rover for the University Rover Challenge
- Integrate octagonal sheet metal frame via iterative design reviews and full rover testing to efficiently support four-corner independent suspension, a six DOF robotic arm, and full electrical subsystem routing across 5 interdisciplinary sub-teams
- Conduct static structural analysis with ANSYS against frame crashes and full arm extension cases to reduce mass by 15%
- Developed a direct drive system for a mini rover using Autodesk Inventor and assembled 3D printed and laser cut parts

Emerson Manufacturing Studio

Ithaca, NY

Shop Assistant

September 2025-Present

- Trained students on the setup and operation of manual lathes, mills, and supporting tooling for precision metal fabrication
- Guided 15+ students in interpreting engineering drawings, selecting proper tools, and determining feed and speed rates

Cornell Society of Hispanic Professional Engineers (SHPE)

Ithaca, NY

Secretary, Former First-Year Representative

October 2023 – Present

- Recruited first year students to the club by organizing social and career development meetings including intern panels
- Collaborated with executive board to plan and host community and professional events with various companies and orgs
- Orchestrated national conference trip by selecting 20+ club members and coordinating hotel, preparation, and social events

Cornell AISES

Ithaca, NY

Corporate Relations Chair

September 2025 – Present

- Drafted corporate sponsorship packet to promote partnerships with AISES chapter, securing 3k+ in funding for club uses
- Conduct information sessions with companies to provide career and networking opportunities to 30+ chapter members

ADDITIONAL INFORMATION

Awards: 2025 Klaviyo ScholarSHPE, 2023 Hispanic Scholarship Fund Scholar, ASME INSPIRE Charles W.E. Clarke Scholar

Activities: Women of Aeronautics and Astronautics, Association of South Americans at Cornell, Society of Women Engineers