Alexis Barrow

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY **Expected May 2027**
Bachelor of Science, Mechanical Engineering, Aerospace Engineering Minor
Relevant Courses: Introduction to Aeronautics, Fluid Dynamics, Mechanics of Engineering Materials, Computing for Engineers, System Dynamics and Controls, Statics and Mechanics of Solids, Thermodynamics, Mechanical Design, Dynamics

PROFESSIONAL EXPERIENCE

General Atomics Aeronautical Systems, San Diego, *Reliability, Availability, and Maintainability/ System Safety Engineering Intern*
June 2025-August 2025

- Led a project independently for Mean Time To Repair calculations for a new Unmanned Aerial Vehicle model, providing valuable data that assisted in the re-design of the model itself considering the time it would take to repair individual parts
- Worked on several projects that included Mean Time Between Failure and Mean Time To Repair calculations for different models of Unmanned Aerial Vehicles, both for internal efficiency analysis and for client quarterly reports
- Worked with Excel spreadsheets to produce several quarterly reports that included both financial and analytical data concerning aircraft failure, including creating a top-ten most failed line replaceable unit table that involved a variety of failure metrics and graph generation for the government of France and the United States Air Force
- Performed Discrepancy-ID classification, analyzing descriptive statistics involving specific failure instances and classifying each failure for the United States Air Force, assisting in their analysis of mission success
- Designed code in Excel that automated a recurring issue involving the elimination of repeating values, increasing the efficiency of the department by reducing 10 hours of manual labor per quarter

Cornell Electric Vehicles Project Team, *Mechanical subteam/ drivetrain subsystem member* **October 2023-Present**

- Collaborate with a project team of 75+ members with a goal of designing an energy efficient electric vehicle
- Own design, analysis, and manufacturing of the driveshaft, which interfaces with every component in the drivetrain. Doubled driveshaft length from last year to accommodate new drivetrain architecture. Analyzed stress concentrations in ANSYS, using results to inform material selection
- Operate several machines including the Lathe and Mill to fabricate several components specific to the drivetrain, including a trak lathe for machining the driveshaft

Cornell Physics 1101 Staff Member, Cornell University, *Tutor/ TA* **September 2024-May 2025**

- Spent 6+ hr/week teaching and tutoring students about mechanics in Fall and electromagnetism in Spring to 100+ students
- Attended weekly meetings to address different modes of teaching and problem solving as well as furthering fundamental knowledge on physics

LEADERSHIP EXPERIENCE

Association of Latino Professionals for America, Cornell University, *Mentor Leader* **September 2025-Present**

- Work with several underclassmen to help strengthen their understanding of engineering professionalism
- Review resumes, perform practice technical interviews, and direct several panels to over 40+ students

Delta Delta Delta, Cornell University, *Head of Social Events* **April 2024-May 2025**

- Planned several meetings throughout the semester to coordinate social events for over 160+ attendees
- Communicated with other social outreach organizers multiple times a week to coordinate specific social events

CAMPUS/ OTHER INVOLVEMENTS

Kappa Theta Pi, Professional Technology Fraternity, Cornell University, *Member* **February 2025-Present**
Society of Women Engineers, Cornell University, *Member* **August 2024-Present**
Association of Latino Professionals for America, Cornell University, *Member* **September 2025-Present**

SPECIALIZED SKILLS

Programs: Python (intermediate), Computer Aided Design (Fusion, AutoCAD, Inventor), ANSYS (intermediate), Machine Shop certified (Mill, Lathe, Trak Lathe), Microsoft product proficient, MATLAB (intermediate)
Other skills/interests: Spanish (certified bilingual by state of NJ), hiking, embroidery, running