

# Alexis Barrow

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## EDUCATION

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

**Expected May 2027**

Bachelor of Science, Mechanical Engineering, Aerospace Engineering and Sustainable Energy Systems minor

Dean's List Fall 2023 and Spring 2024; **GPA: 3.457**

**Relevant Courses:** Sustainable Engineering, Statics and Mechanics, Thermodynamics, Intro to Computing for Engineers, Physics II: Electromagnetism, Physics I: Mechanics, Chemistry for Engineers, Differential Equations, Multivariable Calculus for Engineers

**Courses expected to be completed by Summer 2025:** Dynamics, Intro to Mechanical Design, Linear Algebra for Engineers, PHYS III: Oscillations, Waves, and Quantum Physics

## PROFESSIONAL EXPERIENCE

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

- Collaborate with a project team of 75+ members within Cornell with a goal of designing the world's most energy-efficient electric vehicle that is level-2 autonomous
- Perform force calculations that account for different load cases, test safety through physical and calculation-based testing as well as ANSYS, helped to choose motor for vehicle using previous years' data and calculations
- Operated several machines including the Lathe and Mill to fabricate several drivetrain components specific to the drivetrain, including the motor and gearbox mounts
- Use CAD software to design the motor and gearbox mount for the drivetrain system

**Cornell Physics 1101 Staff Member**, Cornell University, *Tutor/ TA*

**September 2024-Present**

- Spent 6+ hr/week teaching and tutoring students about different topics in a introductory physics class, both mechanics and electromagnetism
- Attended weekly meetings to address different modes of teaching and problem solving as well as furthering fundamental knowledge on physics

**Agrograph**, Virtual, *Intern*

**November 2022-January 2023**

- Company uses satellite sourced data to determine agricultural productivity, ESG sustainability factors, bio-physical soil health models, farm management practices, and valuations of farmland
- Responsibilities included data entry and manipulation, geometry generation, research on agronomy and environmental remote sensing applications, and identifying new uses for geo-spatial mapping data

## LEADERSHIP EXPERIENCE

**Delta Delta Delta**, Cornell University, *Social Committee Chair*

**April 2024-Present**

- Plan several meetings throughout the semester to coordinate social events with other Panhellenic and Interfraternal organizations
- Communicate with other social outreach organizers multiple times a week to coordinate specific social events

**Ramsey High School Varsity Soccer program**, Ramsey High School, *Captain*

**August 2022-December 2023**

- Ran practices, coordinated rides and events, helped organize and deliberate for tryouts, kept track of and coordinated the purchase and replacement of equipment, facilitated conflict and communication

## CAMPUS INVOLVEMENT

**Kappa Theta Pi**, Professional Technology Fraternity, Cornell University, *Member*

**February 2025-Present**

**Delta Delta Delta**, Cornell University, *Member*

**January 2024-Present**

**Society of Women Engineers**, Cornell University, *Member*

**August 2024-Present**

## ADDITIONAL EXPERIENCE

**Five Below**, Ramsey, NJ, *Sales Associate*

**July 2021-June 2022**

## SPECIALIZED SKILLS

**Programs:** Python (proficient), Computer Aided Design (Fusion, AutoCAD, Inventor), ANSYS, Machine Shop certified, MATLAB (beginner), microsoft product-trained, google product-trained

**Languages:** Spanish (certified bilingual by state of NJ); French (beginner), Japanese (beginner)