

Alexa V. Rosano

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EDUCATION

Cornell University, College of Engineering, Ithaca, New York
Junior Candidate for Bachelor of Science in Mechanical Engineering | GPA: 3.43

Expected May 2027

Relevant Courses: Statics of Solids, Differential Equations, Computer Science, Electricity and Magnetism, Dynamics, Thermodynamics, Mechanical Synthesis

Currently Enrolled Courses: Aeronautics, Fluid Mechanics, System Dynamics, Mechanics of Engineering Materials

High Tech High School, Secaucus, New Jersey
D|FAB Major in Wood Technology | GPA: 4.443/4.3

Graduated June 2023

Relevant Courses: Wood Technology, Engineering Design, Industrial Design & Animation

RELEVANT EXPERIENCE

Cornell Design Build Fly, Cornell University, Ithaca, New York

Mechanical and Structures Subteam Member

October 2023 - Present

- Investigated and documented the application of carbon fiber for RC plane fuselages, reducing overall mass, improving structural integrity, and increasing cabin space by a quarter with the removal of balsa ribs and stringers.
- Calculated and designed 3D models of fuselage molds and nosecones to reduce mass by 50% in SolidWorks for the international Design/Build/Fly competition.
- Diagnosed failures and implemented solutions for a misaligned landing gear and broken baseplate under time-sensitive conditions to ensure project continuity after flight attempts at the DBF competition.
- Collaborated with team members to evaluate the feasibility and integration of aircraft layouts for higher point outcomes while complying with the competition restrictions.

ADDITIONAL EXPERIENCE

West New York Police Explorers, West New York Police Department, West New York, New Jersey

Explorer

August 2019 - Present

- Supervise aspiring explorers who enter the Police Leadership Camp
- Facilitate events for the community (carnivals, parades, elderly holiday events)
- Obtain hands-on experience in policing and the criminal justice system
- Learn self-discipline, teamwork, and motivation to enhance character development

Target Corporation, Edgewater, New Jersey

Team Member

May 2025 - August 2025

- Accurately handled cash and register operations
- Completed scans and system audit functions to ensure inventory accuracy
- Maintained backroom and location accuracy to create an organized experience
- Assisted and engaged with guests in a welcoming environment to solve issues

HTHS Wood Technology Department, Hudson County Schools of Technology, Secaucus, New Jersey

Woodshop Assistant

August 2022 - September 2022

- Constructed and designed sporting equipment to meet customers' specifications
- Pioneered new methods in easily designing and applying vinyl logos
- Trained incoming peers on the project's manufacturing process

SKILLS / INTERESTS

Programs: SolidWorks, Autodesk Fusion360, Matlab, ANSYS, Autodesk Inventor, Adobe Illustrator

Technical Training: Composite assembly, Woodshop machinery (Mill, Lathe, CNC, Bandsaw, Laser Cutter), 3D printing

Languages: English (native), Spanish (fluent), Portuguese (conversational)

Interests: Aviation, Astronomy, Transportation Safety, Illustration

Other: US Citizen, NJ Seal of Biliteracy