Shelyn Castellanos - CV

Objective

Aspiring mechanical engineering student with a strong foundation in hands-on engineering and mechanical systems. Interested in applied engineering - building, testing, troubleshooting, and improving real systems, and eager to apply my knowledge to real-world applications.

Education

- Cornell University
  Bachelor of Science in Mechanical and Aerospace Engineering
  Graduation: May, 2026
- Memorial High School
  High School Diploma
  Graduation: June, 2021

Skills

- Software: Autodesk Fusion 360, SolidWorks, AutoCAD, ANSYS
- Programming: Python, MATLAB
- Tools: Machining, 3D Printing, Laser Cutting

Projects

- **Wind Turbine Blade Design & Testing:**
  Designed, tested, and analyzed small scale wind turbine blades
  - Developed blade geometry using airfoil theory and MATLAB based modeling
  - Met structural and operational design constraints (bending, torque) during wind tunnel testing while maintaining an adequate factor of safety
  - Identified and analyzed real-world performance losses relative to analytical predictions
- **Ethical Analysis of Boeing 737 MAX Case:**
  Short description: Analyzed ethical and safety issues of the Boeing 737 MAX.
  - Analyzed the Boeing 737 MAX case to identify ethical failures related to safety, accountability, and engineering decision-making
  - Applied the ASME Code of Ethics to evaluate engineering responsibilities and the impact of organizational and regulatory pressures

Work Experiences

- **Cornell University MAE Instructional Labs - Research/Lab Assistant**
  June, 2025 - Present
  - Support undergraduate engineering labs and build instructional demos
  - Set up and repair lab apparatus; test and assemble experimental equipment; prepare labs for upcoming semesters

- **Cornell University Engineering Advising - Office Assistant**
  January, 2025 - Present
    - Provide administrative support and assist students with inquiries
    - Maintain office organization and documentation

- **Cornell University Engineering Learning Studio - Build Crew Member/Intern**
  January, 2024 - May, 2025
    - Disassemble and analyze mechanical systems including engines and forklifts
    - Use CAD to study complex machinery when physical teardown is limited.

Achievements & Certifications

- Circle Match Scholar, 2021
- Governor's STEM Scholar, NJ Governor's STEM Scholars Program, 2021
- Questbridge Scholar, QuestBridge National College Match, 2021

Extracurricular Activities

- Circle Match Advisor, Circle Match
- IRS-Certified Volunteer, Volunteer Income Tax Assistance Program\

References

Available Upon Request