

Emilio Ceballos

(915) 280-5460

<https://www.linkedin.com/in/emilio-ceballos>

eac288@cornell.edu

EDUCATION

BS, Mechanical Engineering

Cornell University, Ithaca, NY

Expected Graduation: May '26 **GPA:** 3.5

M.Eng, Materials Science and Engineering

Cornell University, Ithaca, NY

Expected Graduation: Dec '26

***Relevant Courses:** Finite Element Analysis for Mech. and Aerospace Design; Polymer Mechanics; Product Design via Digital Manufacturing; Propulsion of Aircraft and Rockets; Mechatronics; Systems Dynamics; Heat Transfer*

SPECIALIZED SKILLS

Programs: Autodesk Inventor, Creo Parametric, Fusion360, Ansys Mechanical, Python, MATLAB, Microsoft Excel

Languages: Spanish (native)

PROFESSIONAL EXPERIENCE

Corporate Intern (Manufacturing) | Sanford, NC | *Caterpillar, Inc.*

May-Aug 2025

- Led Lean Manufacturing cross-functional effort to reduce scraps for compact track loaders, implementing countermeasures among manufacturing and quality engineers as well as operators
- Implemented a vertical holding station for CTL towers, freeing up Automated Guided Vehicles, optimizing flow, and reducing injury risk for operators
- Improved fixture safety FMEA rating by designing a “frame stop,” ensuring part will not move during welding

Chassis Subsystem Lead | Ithaca, NY | *Cornell Electric Vehicles Project Team*

Oct 2022-May 2025

- Led team of 7 people in the design of the 2025 Urban Concept (UC '25) vehicle using Autodesk Alias software
- Conducted multiple rounds of FEA structural analysis using Ansys, yielding a modified layup schedule, resulting in 10% chassis weight reduction and over \$500 saved in materials compared to our UC '24
- Presided over carbon-fiber (CF) layups, employing techniques like vacuum infusion and wet layups, successfully manufacturing the chassis and structural components of UC '25.
- Spearheaded changes in the pre-layup process, including mold polishing and core preparation, immensely improving surface finish quality, and reducing lead times by an average of one week per part
- Managed team-wide procurement platform, including product selection, purchase, and quality inspection

Advanced Module Engineering Intern | Malta, NY | *GlobalFoundries*

Jun-Aug 2024

- Collected chemical expenditure data across the Cleans module and compared it to theoretical recipe values to ensure tools were properly calibrated
- Developed a system to generate pre-dispense expenditure data to quantify material usage
- Classified work orders and alarm types across the Cleans module by tool vendor, family, and type for analysis

CAMPUS INVOLVEMENT

Society of Hispanic Professional Engineers (SHPE) | *Co-President*

Jan 2025-Present

- Launched a massive recruitment strategy, including a social media overhaul and the creation of a newsletter, resulting in a 50% membership increase
- Implemented an involvement-based “points system” for a more efficient and transparent selection process for the SHPE National Convention
- Managed logistics, financials, and preparation events to take 22 people to the 2025 SHPE National Convention.

Reis Tennis Center | Cornell University | *Racket Stringer*

Sept 2023-Present

- Collaborated with a small team to precisely string 30+ rackets weekly under pressing and changing timelines for Cornell Men's and Women's Varsity D1 teams, as well as professional tennis players

Honors: Hispanic Scholarship Fund (HSF) Scholar (2022), NACME Corporate Scholar (2024)

Affiliations: SHPE at Cornell (Academic Chair, Oct 2023-Dec 2024), M.E.Ch.A (Treasurer, Feb 2023-May 2024)