Samantha Pochet
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SPECIALIZED SKILLS

Programs: Finite Element Analysis (FEA), ANSYS, Solidworks, Autodesk Fusion 360 & Inventor, MATLAB, Android Studio/JAVA, Python,
Manufacturing: CNC mill/lathe (100+ hours), Laser Cutter, 3D Printing, DFMA, Woodworking
Languages: Conversational Spanish, Fluent English

EDUCATION

Cornell University, College of Engineering, Ithaca, NY **Expected May 2027**
Bachelor of Science, Mechanical Engineering, Minor in Aerospace Engineering

Relevant Courses: Fluid Mechanics; Thermodynamics; Statics and Mechanics of Solids; Differential Equations; System Dynamics; Waves, and Quantum Physics

EXPERIENCE

Cornell Mars Rover, Ithaca, NY, *Systems Lead* **June 2025-Present**

- Leads a 50+ person interdisciplinary team in designing/building/manufacturing a semi-autonomous rover for the University Rover Challenge
- Serves as the point person for mechanical integration, ensuring subsystem compatibility across all disciplines
- Designs/enforces system level requirements for entire team across full design cycle (PDR/CDR/FDR/testing)
- Spearheads team-wide sponsorship outreach, materials acquisition, and new member recruitment/trainings

Cornell Mars Rover, Ithaca, NY, *Drives Subteam Member* **January 2024-June 2025**

- Responsible for design of the rover's frame, conducted FEA simulations in ANSYS to identify stress concentrations and optimize rover frame for load-bearing efficiency to support team's first 4-corner independent suspension
- Fabricated components for all sub-teams using manual mill/lathe
- Collaborated with all sub-teams to balance electrical/mechanical requirements and integrate within rover frame
- Presented analysis and design justifications at design reviews throughout to team, alumni, and sponsors
- Selected for 2025 competition team – responsible for assembling rover on-site and validating performance prior to competition

Cornell Engineering, Ithaca, NY, *Peer Advisor* **June 2024-Present**

- Plans and facilitates a 10-week first-year Engineering Seminar
- Responsible for curriculum organization, mentorship, and serving as planning advisor for first year engineering students
- Promoted inclusive student engagement, supporting diversity and retention within engineering

VOLUNTEER EXPERIENCE

FIFA Club World Cup, Cincinnati OH, *Access Management Volunteer* **May 2025-July 2025**

- Supported venue operations by managing accreditation and access control for VIPs, media personnel, staff, and players
- Ensured smooth flow and compliance with FIFA security protocols by verifying credentials and assisting with crowd coordination at controlled entry points
- Worked in a diverse, multilingual environment, ensuring smooth event operations

FIRST Robotics Community Outreach, Dayton OH, *Organizer* **August 2018-March 2022**

- Coordinated and facilitated youth programming camps, robotics tournaments, and STEM education events for children ages 9–14, fostering early interest in engineering and coding
- Mentored participants through hands-on activities, guiding teams in foundational programming, problem-solving, and collaborative project work

CAMPUS INVOLVEMENT

Society of Women Engineers, Cornell University, *Outreach Committee Member* **September 2023-Present**
Society of Professional Hispanic Engineers, Cornell University, *Member* **Aug 2023-Present**
Women's Rugby FC, Cornell University **August 2024-Present**