

Claire Pillar
Wynnewood, PA
(215)-680-1604 | cep229@cornell.edu

EDUCATION

Cornell University, Bachelor of Science in Mechanical Engineering

- GPA: 3.67/4.00
 - Expected Graduation: May 2027
 - Relevant Coursework: Fluid Mechanics, System Dynamics, Thermodynamics, Dynamics, Statics, Introduction to Mechanical Design, Waves and Oscillations, Electromagnetism, Mechanics, Linear Algebra, Ordinary Differential Equations, Environmental Engineering Processes
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RESEARCH EXPERIENCE

SEA Lab Student Researcher (2024- Present)

- Collaborated with other students on a literature review for a paper on implementing Wave Energy Converters (WEC) for Integrated Multi-trophic Aquaculture (IMTA). Conducted research, peer reviewed, and finalized the literature review for the paper to be published.
 - Designed, built, and tested a small scale WEC prototype for University of New Hampshire's "Aquafort" IMTA. Worked with a partner to come up with several designs based on current research and our own analysis, then selected the premier design to CAD after a peer review session. Built the prototype and successfully tested it for proof of concept at Cornell's wave tank
 - Currently researches and designs WECs for full scale design which converts wave movement into 100 kW/day that can be used to power food dispensers and other energy needs of the Aquafort, making it entirely reliant on renewable energy. Researches hydraulics, PTO design, and offshore structure analysis to create a comprehensive design
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LEADERSHIP POSITIONS

Cornell Outdoor Odyssey Guide, Secretary and Selections Team Member (2024-Present)

- Learns leadership abilities, DEI awareness, and outdoor skills to prepare to lead a group of six first-year students on a six-day backpacking pre-orientation trip in the Adirondacks High Peaks in August. Continues to serve as a mentor and support system for new students as they adjust to college.
- Oversees all communication in the organization and records transcript and attendance of weekly Executive Board meetings. Helps to plan future events and select the next class of guides

Cornell Women's Rugby, Vice President (2023-Present)

- Trains with team several times a week and participates in competitions with other programs. Served as interim captain during the 2025 spring semester and lead the team through the Ivy League Championship
 - Communicates with team, alumni, and Upstate NY Rugby to run practices, attend tournaments, and determine budget and future goals of program. Oversees other Executive Board positions to ensure smooth operation of the team
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SKILLS

- Coding: proficiency in Python, Java, MATLAB, Simulink and Google Workplace applications
- AutoCAD: experience with Fusion360
- Prototyping and Fabrication