Charlotte Tama

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SUMMARY

Mechanical engineering student excited to explore interests in aerospace engineering, flight physics, and computer modeling, bringing passion, proactivity, and diverse science and communication background to driven engineering teams.

EDUCATION

Cornell University, College of Arts and Sciences, Ithaca, NY **Expected May 2028**
Bachelor of Science, Mechanical Engineering (Intended), Aerospace Engineering Minor, Public Policy Minor
GPA: 3.71

Relevant Courses: Object-Oriented Programming and Data Structures; Differential Equations; Multivariable Calculus; Physics I: Mechanics and Heat; Physics II: Electricity and Magnetism (In Progress); Thermodynamics (In Progress); Statics & Mechanics of Solids (In Progress)

RELEVANT EXPERIENCE

Design Build Fly Project Team, Ithaca, NY, *Aerodynamics Subteam Member* **Sep 2025-Present**

- Developed plane wingtip devices. Researched optimal design for dihedral stability, lift, and minimal weight and modeled in SolidWorks.
- Collaborated with 8+ subteam members as well as 20+ mechanical and propulsion team members to manufacture, integrate, and test the plane in preparation for annual AIAA Design Build Fly Competition.

Independent Project, *Drone Construction* **Jul-Aug 2025**

- Constructed quadcopter FPV drone incorporating 30+ mechanical and electrical components.
- Configured drone-computer communication using PixHawk flight computer and ArduPilot control software.
- Utilized soldering and small-scale mechanical hand tools in frame construction.

Cornell Cybersecurity Club, Ithaca, NY, *New Member* **Jan 2025-Present**

- Participate in Capture the Flag (CTF) computer system challenges involving cryptography, web exploitation, reverse engineering, and system vulnerabilities.
- Delivered technical presentation to 20+ members on man-in-the-middle attacks and WiFi Pineapple devices.

National Air and Space Museum, Washington, DC, *Docent* **Jan 2023-Aug 2024, May-Aug 2025**

- Lead science demonstrations at interactive "discovery stations," interacting with 100+ visitors per hour.
- Explain aviation and astronomy topics including the forces of flight, black holes, relativity, and rocketry, tailoring explanations to diverse audiences.
- Train new staff on content and visitor engagement practices.

LEADERSHIP EXPERIENCE

Cornell Outdoor Education, Cornell University, *Backpacking Trip Leader* **Aug 2025**

- Led pre-orientation backpacking trip of 8 incoming freshmen alongside two co-guides.
- Taught backpacking and wilderness survival skills; coordinated route-planning, lodging, gear rentals, safety protocol, and communication with participants.

Women in Computing at Cornell, Cornell University, *Girls Who Code Class Facilitator* **Jan-May 2025**

- Led Girls Who Code weekly beginner coding classes of 20 local middle school students, collaborating with a team of 15 undergraduate volunteers to support students in concepts and assignments.
- Facilitated students' creation of cumulative final Python creative projects.

CAMPUS INVOLVEMENT

Air Force ROTC, Cornell University, *Cadet* **Aug 2024-Present**

ADDITIONAL EXPERIENCE

Self-Employment, Virtual, *SAT Tutor* **Jun 2024-Present**
Developmental Social Neuroscience Lab, George Washington University, *Research Intern* **Sep 2022-Jun 2023**

SKILLS

Skills: SolidWorks, Java, Python, NumPy, Object-Oriented Programming, Data Analysis