

Yunting Catherine Guo

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EDUCATION

Cornell University, Sibley School of Mechanical and Aerospace Engineering

Ithaca, NY

Candidate for Bachelor of Science in Mechanical Engineering

Expected Graduation: May 2027

Minor in Electrical & Computer Engineering

Cumulative GPA: 3.84

Relevant Coursework: Introductory Fluid Mechanics, Mechanics of Engineering Materials, System Dynamics, Foundation of Robotics, Thermodynamics, Dynamics, Introduction to Mechanical Design, Embedded Systems

PROFESSIONAL EXPERIENCE

Erickson Lab@Cornell University

Ithaca, NY

Undergraduate Researcher

June 2025 – Present

- Designed and iteratively prototyped over 300 single- and triple-strip Lateral Flow Assay cassettes in resin printing
- Validated cassette designs with colorimetric (EBOV, MARV, LASV) and fluorophore (PR, ER, HER2) assays
- Generated engineering drawings and technical figures in Fusion 360 to support graduate research documentation

CU Solar Boat Project Team

Ithaca, NY

Hull Subteam Lead

August 2024 – Present

- Designed and fabricated hull for hydrodynamic efficiency and structural integrity to excel in annual competition
- Built prototype hull with plywood, resin, and fiberglass to assess and refine its strength and surface finish
- Collaborated with Drivetrain and Solar subteams for successful steering system and solar panel integrations

JNY RE LLC

Remote

Backend Development Intern

June 2024 – August 2024

- Developed a web application with interactive widgets to enhance landlords' usability and streamline UX
- Implemented live tracking of 110+ tenants' rent balances and payment schedules to maximize company efficiency
- Applied Pandas and Piecash libraries to GnuCash data for optimized processing of individual tenants' data

Cornell University School of Electrical and Computer Engineering

Ithaca, NY

Teaching Assistant for Introduction to Circuits for Electrical and Computer Engineers

January 2025 – Present

- Spearheaded weekly lab sessions with self-drafted teaching material for 30+ students to foster course mastery
- Held office hours to provide supplementary assistance, clarify on lecture topics, and address student questions
- Evaluated and provided constructive feedback on 100+ students' homework assignments, lab reports, and exams

EXTRACURRICULAR INVOLVEMENT

Cornell Archery Club

Ithaca, NY

Treasurer

September 2023 – Present

- Engaged in weekly 2-hour practices on a 20-yard lane to enhance precision, focus, and archery techniques
- Instructed 30+ new members on proper stance and release techniques to increase member engagement and safety
- Led outreach initiatives and promoted club activities to increase campus visibility and new member engagement

ADDITIONAL INFORMATION

Languages: English (Native Proficiency), Chinese (Native Proficiency), Spanish (Limited Working Proficiency)

Skills: Fusion 360, SolidWorks, 3D printing, Machining, MATLAB, Java, Python, LTspice, Wet Lab Techniques

Interests: Archery, Cuisine, Hands-on Projects, Rubik's Cube, 2048, Anime, FPS games, Detective Dramas, K-Pop