

KAREN CHEN

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EDUCATION

Cornell University | College of Engineering

Bachelor of Science in Mechanical Engineering, Minor in Linguistics

Ithaca, NY

December 2027

Relevant Coursework: Thermodynamics, Dynamics, Statics and Mechanics of Solids, Mechanical Properties of Materials

RELEVANT EXPERIENCE

Arson Lab

Undergraduate Researcher

Ithaca, NY

September 2025 – Present

- Use MOOSE finite-element analysis to determine stress states in NYC bedrock under proposed tunnel geometries.
- Review scientific literature on tunnel design, NYC geography, and current civil engineering projects in NYC.

Intrepid Museum

Techs of Tomorrow Intern

New York City, NY

July 2025 – August 2025

- Researched and designed a 3D aircraft model using aerospace principles and Fusion 360.
- Wired and coded small robotic arm using Arduino Uno R3, apply servo control and basic circuitry.
- Presented weekly prototypes to 20+ museum visitors and staff, and applied feedback to refine designs.
- Networked with women professionals in the aerospace industry to learn about career pathways and industry perspectives.

WORK EXPERIENCE

Office of Inclusive Excellence | College of Engineering

Learning Facilitator

Ithaca, NY

January 2026 – Present

- Refine in-class activities for ENGRD 2020 by converting past material to worksheets and streamlining lecture plans.
- Increase student engagement by facilitating group work and easing confusion in 90-person lectures.

Peer Tutor

September 2025 – Present

- Reinforce foundations in differential equations, linear algebra, and statics, preparing 10+ students for advanced coursework.
- Improve content retention through active recall and targeted practice problems in individual sessions and group study jams.

Leap Prep

SAT Coach

New York City, NY

April 2025 – August 2025

- Tutored 20+ students in earth science, physics, and SAT prep through tailored curriculums and past exam review.
- Improved student confidence by addressing learning gaps and providing college application guidance.

Cornell Dining | Risley Dining Room

Student Dining Associate

Ithaca, NY

November 2024 – May 2025

- Maintained food stations during fast-paced shifts, including holiday and event shifts, up to 8 hours weekly.
- Monitored temperatures and communicated with students and chefs to ensure food safety and allergy awareness.

EXTRACURRICULAR EXPERIENCE

CU Pro-Yos

Marketing

Ithaca, NY

January 2025 – Present

- Record footage and edit club promotional videos using DaVinci Resolve; cut, color grade, and stabilize final media.
- Design social media posts on Canva to promote club members, workshops, and performances.
- Lead 8-person flow choreography and perform with baton staffs and Chinese-yoyo across campus events.

Sciencenter

Education Programming Assistant

Ithaca, NY

August 2025 – December 2025

- Supervised interactive science exhibits, ensuring a safe and tidy museum environment for children and families.
- Fostered an interest in STEM by asking children open-ended, thought-provoking questions at exhibits.
- Facilitated an inclusive environment through using unbiased language and encouraging curiosity among children.

SKILLS AND INTERESTS

Technical Skills: Fusion 360, Onshape, Arduino, MATLAB, Ansys

Other Skills: DaVinci Resolve, Canva, Procreate, Microsoft Office Suite

Languages: Mandarin (conversational), Spanish (intermediate)

Interests: Flow arts (poi and staff), language learning (Cantonese), amateur photography, hand sewing, drawing