

Edison Chen

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+1 (929) 293-8862 — New York, NY

Education

Cornell University, Ithaca, NY

Anticipated Graduation: 5/2027

B.S. in Mechanical Engineering

Relevant Coursework: Thermodynamics, Statics and Mechanics of Solids, Dynamics, Mechanical Design, Data Science, Fluid Dynamics, Biomedical Transport Phenomena, Introduction to Aeronautics, System Dynamics, Mechanical Engineering of Materials, Mechatronics, Heat Transfer

Skills

- **Languages:** English, Mandarin
 - **Programming:** Python, Java, MATLAB
 - **Software:** DaVinci Resolve, Adobe Premiere Pro, Photoshop, Microsoft Office, AutoCAD, Fusion 360, SolidWorks, ANSYS
 - **Technical:** Soldering, 3D Printing, Machining, Arduino, Microbeam Cutting

Experience

Donnelly Research Lab, Ithaca, NY

8/2025 – Present

Undergraduate Researcher

- Conducted 4-point bending and microbeam cutting tests to quantify bone strength under diabetic conditions.
 - Applied fluorescence imaging to track microcrack initiation and propagation in bone tissue.
 - Investigated the effects of Type II diabetes on the mechanical properties of bone tissue.

Bio-Inspired Fluids Lab, Ithaca, NY

8/2024 – 8/2025

Undergraduate Researcher

- Created 3D CAD models and fabricated prototypes to support fluid-structure interaction studies.
 - Designed and validated fluid dynamics experiments, improving model accuracy by integrating experimental data.

JASA, New York, NY

6/2024 – 8/2024

Intern

- Supported program initiatives that improved community engagement participation.
 - Researched and recommended operational improvements, streamlining internal reporting processes.

Research Projects

Water-Drinking Robot, Prof. Jung's Lab

8/2024 – 5/2025

- Designed and 3D-printed a robot to replicate fluid uptake in natural systems.
 - Conducted experiments analyzing oscillatory backwash behavior, contributing to broader bio-fluid transport research.
 - Integrated Arduino-controlled motors to regulate robotic actuation.