Isaac Ng

Quincy, MA | (781) 363-7836 | in63@cornell.edu

EDUCATION

Cornell University, College of Engineering **Ithaca, NY**
Bachelor of Science in Mechanical Engineering Expected May 2027
GPA: 3.2
Relevant Courses: Fluid Mechanics, System Dynamics, Intro to Aeronautics, Mechanics of Engineering Materials, Thermodynamics, Statics & Mechanics of Solids, Python, Differential Eqs, Dynamics, Mechanical Design, and Linear Algebra

EXPERIENCE

Cornell Engineering Student Project Teams Program **Ithaca, NY**
Project Team Operations Assistant Sept 2025 – Present

- Provided safety oversight and technical support in fabrication labs during evening/weekend hours
- Managed inventory, assisted with equipment maintenance, and chemical waste disposal for project teams

Factorial Energy **Billerica, MA**
Battery Engineering Intern May 2025 – August 2025

- Assisted in the manufacture and quality control of solid-state batteries by operating stacking and vacuum sealing equipment and inspecting cells with Lumafield CT Scanner and Voyager software
- Reduced stack and sealing process time by 50% through rapid prototyping of a new fixture and time studies
- Enhanced quality control by designing a fixture enabling simultaneous CT scanning of 8 pouch cells.
- Updated Standard Operating Procedures (SOPS) for the sealing and quality control processes of solid-state batteries and Master Production Sheets using Microsoft Word and Excel

Cornell Design Build Fly Project Team **Ithaca, NY**
Aerodynamics and Controls Subteam Lead April 2025 – Present

- Led a 9-person subteam; delegated, and supervised weekly tasks during design, build, and testing phases
- Presented in 3 critical design review sessions to justify design and component choices

Aerodynamics and Controls Subteam Member October 2023 – April 2025

- Design and manufacture the empennage of a radio-controlled aircraft for the AIAA Design/Build/Fly competition using SolidworksCAD, laser cutting, and 3D printing
- Test aerodynamics and loads of empennage and control surfaces using ANSYS CFD and Solidworks FEA

Jung Lab **Ithaca, NY**
Undergraduate Research Assistant January 2025 – Present

- Designed and tested artificial bat wings to analyze lift and drag under forces using simulation and photography
- Experimented on upgrading the tethered model to an untethered model with optimized lift and drag forces

EXTRACURRICULAR ACTIVITIES

Lambda Chi Alpha **Ithaca, NY**
High Philanthropy Chair January 2025 – Present

- Coordinated a free CPR/AED training session in partnership with the American Red Cross and organized multiple fundraising events, raising $1500 for BreakthroughT1D

Avier Flight School **Beverly, MA**
Student Pilot June 2022 – Present

- Attained a Student Pilot's License from the Federal Aviation Administration
- Logged 25 hours of flight training on takeoffs, landings, navigation, and emergency procedures

SKILLS

Skills: CAD (Solidworks, Fusion 360), Python, ANSYS, Machine Shop(Mill,Lathe), MATLAB, Microsoft Office
Languages: English (native), Cantonese (native)