Kandice Lu

413-834-8510 kandicelu3.14@gmail.com **Portfolio:** https://kandicelu.github.io/

Education

Cornell University – B.S. in Mechanical Engineering **Exepcted May 2026**

- GPA: 4.098/4.3, 3.919/4.0

Cornell University – M.Eng in Aerospace Engineering **Expected Dec 2026**

Relevant Coursework

- Aeronautics, Aircraft Propulsion, Flight Dynamics, Finite Element Analysis, Material Mechanics, Vibrations, Thermodynamics, Heat Transfer, System Dynamics, Mechatronics,

Skills

- **Technical Skills:** Computer-Aided Design, FEA, Structural Analysis, Machining, Welding DFMA, GD&T
- **Software:** Ansys, Solidworks, Fusion 360, STAAD.Pro, LabVIEW
- **Programming Languages:** MATLAB, C/C++, Python

Engineering Experience

Team Lead, Fabrication Lead **Sep 2023 – Present**

Cornell Steel Bridge Project Team *Ithaca, NY*

- Led a multi-disciplinary team of 30 students to design and fabricate a 20 foot steel bridge to withstand a 2500lb load with minimal deflection in an annual competition
- Optimized section properties and geometries to improve projected structural efficiency costs from the initial design by 15%
- Modeled member connections with CAD and assessed safety factors through FEA to ensure structural integrity
- Create full CAD assembly of design, compile BOM and source all necessary materials
- Assessed structural performance by conducting static load testing and implemented necessary fixes
- Created manufacturing drawings and streamlined machining procedures to finish fabrication 20% ahead of schedule

Undergraduate Researcher **May 2025 – Present**

ZT Group *Ithaca, NY*

- Developed and optimized procedures for fabricating potential polymer-based thermal interface material samples
- Characterized thermal properties of polymer samples via laser flash testing to inform subsequent experimental changes

Coursework Projects

Finite Element Analysis: Wing Design **Oct 2025 – Dec 2025**

- Designed an airplane wing to minimize weight while meeting deflection and safety factor requirements
- Analyzed and optimized design configurations in ANSYS, reducing initial weight by over 20%
- Performed manual and automatic mesh refinement tests to ensure convergence of constraint parameters

Mechatronics: Robot Competition **March 2025 – May 2025**

- Design and program an autonomous cube-collecting robot within given size and budget constraints
- Effectively troubleshoot and resolve mechanical, electrical, and programming issues

Introduction to Aeronautics: Glider Project **Sep 2024 – Dec 2024**

- Designed a slow flying balsa glider, performing lift and drag calculations to achieve balanced flight
- Modeled glider skeleton with CAD and constructed glider via laser cutting and hand assembly
- Tested and rebalanced constructed glider to achieve desired speed and stability, achieving 5th place in final competition

Work Experience

Finger Lakes Reuse **June 2025 – Aug 2025**

Administrative Project Intern *Ithaca, NY*

- Researched the viability of and assisted in the implementation of transitions to new report creation and price management systems
- Assisted chief officers in creating and organizing various strategic documents, databases, and reports