

Hugo Larios

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Education:

Cornell University, College of Engineering, Ithaca, NY
Bachelor of Science (B.S.) in Mechanical Engineering

Expected: May 2027

Cumulative GPA: 3.42/4.0

Relevant Coursework:

Mechanical Design, Thermodynamics, Intro to Fluids, Engineering Materials, Dynamics.

Technical Experience:

Cornell Design Build Fly (CUDBF), Ithaca, NY
Propulsion Sub-team Lead

September 2024-Present

- Holds the leadership position for the propulsion sub-team. Collaborated with the other sub-teams as a delegate to choose a final design for the plane, as well as identify the best way to integrate the onboard electrical components.
- Responsible for the 7 other members of the propulsion sub-team. Leads propulsion and electronic system design and splits up work for members to focus on.
- Designs various tests for our propulsion system. Created a program that utilizes a 10 kg stress-strain load cell and an Arduino to measure the maximum thrust of any given motor and propeller combination.
- Determines the best battery, motor, and propeller combinations by utilizing a MATLAB sizing script and eCalc (a website that calculates different brands and component ratings to predict thrust-to-weight ratio, battery life, and static thrust).
- Uses Fusion 360 and SolidWorks to design integration pieces that can store the main electrical system of the plane.
- Using soldering and crimping skills to integrate hardware and circuits onto the plane.

Summary: CUDBF competes in the Design, Build, Fly competition held by American Institute of Aeronautics and Astronautics (AIAA). Every year, AIAA creates brand new mission parameters that an aircraft must be able to perform under, so every year CUDBF must create a new plane to operate under those conditions. The propulsion sub-team is responsible for designing and integrating electronic components.

Work Experience:

Cornell Athletic Ticketing, Ithaca, NY, *Student Assistant*

September 2023-Present

- Collaborated with team members to make guest entry more efficient.
- Prioritized excellent customer service and clear communication with superiors when necessary.

Outlier AI, Las Vegas, NV, *AI Writing Evaluator*

Summer 2024 & Summer 2025

- Would provide prompts via words or images to an AI model. Then we would review and edit the chatbot response to help train the AI to speak more naturally and correct any accidental misinformation.
- Trained AI chat models against STEM-related prompts. This would enable the chatbot to employ the correct thought processes when solving problems and verify that the model generates the correct solution.

Skills & Interests:

Programs: Python, Java, MATLAB, Microsoft Suite, Autodesk Fusion 360, SolidWorks, ANSYS, ecalc

Certifications: CNC Machine Trained, First Aid, Lifeguard Certified

Skills: Leadership, Customer Service, Communication, Organization

Hobbies: Archery, Chess, Drawing, & Piano