Michael C. Lagana

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Education

Georgia Institute of Technology — **Atlanta, GA**
Candidate for Bachelor of Science in Aerospace Engineering — May 2026 — GPA: 4.00/4.00
- Honors Program, Sigma Gamma Tau, Faculty Honors
- Relevant Coursework: Computing for Engineers, Statics, Mechanics of Deformable Bodies, Thermodynamics and Fluids Fundamentals

Experience

Ben T. Zinn Combustion Laboratory — **Atlanta, GA**
Research Assistant — September 2023 - Current
- Created CAD assemblies of optical setups for use with Raman scattering diagnostics
- Learned about the design of experimental combustion stand and testing methodology
- Wrote MATLAB code to expedite PIV data processing
- Fabricated various components for use in optical testing setup

VIP Special Purpose Aircraft: NASA ULI Urban Air Mobility — **Atlanta, GA**
Hardware Sub-team — January 2023 - May 2023
- Built and tested prototype Raspberry Pi based drones for use with experimental flight path generation algorithms
- Diagnosed drone hardware and software issues (e.g. telemetry, motor controls)
- Recorded instructions for researchers of other cooperating universities to reproduce the tests

Activities

Invention Studio — **Atlanta, GA**
Prototyping Instructor — September 2022 - Current
- Trained on a variety of specialized tool groups within Georgia Tech's maker space
- Provide support and instruction to students needing prototyped designs
- Assist with the maintenance and repair of studio equipment and machines
- Specialized in the electronics tool group to learn about and help manage it

Yellow Jacket Space Program — **Atlanta, GA**
Propulsion Controls Sub-Team Member — January 2023 - Current
- Designing a prototype dual chamber pump for use consideration on upcoming Vespula rocket
- Aided in the collection of data for a prototype needle valve using a pressurized water flow stand

RoboJackets: RoboNav — **Atlanta, GA**
Drone Hardware Lead — October 2023 - Current
- Designing and building a drone to complete competition tasks including rover guidance, delivery mission, and data gathering
- Retrofitting previous team's old hardware for cost efficiency

Platform RPi Drone — **Atlanta, GA**
Personal Project — June 2023 - Current
- Used experience from VIP to design around the Pixhawk flight controller and Ardupilot software
- Applied CAD experience to design drone frame components in Fusion 360 for ABS 3D printing
- Programmed Raspberry Pi flight computer and ground station for wireless control via laptop

Skills & Interests

Software: Linux, Fusion 360, Simulink, VirtualBox, KiCAD, FlatCAM, SolidWorks
Technical: Waterjet, Metal Shop, Wood Shop, 3D Prototyping, Metal Lathe, PCB Fabrication
Programming Languages: Python, MATLAB, C++
Interests: Chess, Cardistry, Golf, Pen-testing, Jiu-Jitsu, Volleyball