LANGSTON JOHNSON

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EDUCATION

Cornell University Ithaca, NY
Bachelor of Science - Mechanical Engineering May 2027
GPA: 3.96
Relevant Coursework: Engineering Materials, Thermodynamics, Waves and Oscillations

TECHNICAL SKILLS

Software: SolidWorks, Fusion 360, Ansys, Git, Python, C#, SQL
Electrical: PCB Design, Soldering (SMD/THT), Embedded Systems
Mechanical: CNC Machining, Mill & Lathe Operation, 3D Modeling, Mass Properties
Manufacturing: SAP Manufacturing Execution System (MES)

EXPERIENCE

Amazon – Project Kuiper | Mission Management Intern, Integration Engineering
Mission Management Intern Paid

- Reviewed the mechanical and financial feasibility of Aerospace Hardware Contracts.
- Developed SQL queries to track the live status of hardware processing, integration, and open non-conformances using Manufacturing Execution Data.
- Created a Secure Dashboard to enable secure access to Processing Facility Operations data.

Cornell Rocketry Team | *Solidworks, Ansys, Machining* September 2024 – Present
Structures Subteam

- Modeled Launch Vehicle using flight data to predict performance of Airbrakes subsonic and transonic regime and inform design parameters.
- Structural Ansys testing of drag inducing elements under loads predicted from the model.
- Designed integration bulkheads and motor retaining rings for CNC machining.
- Created Mass Properties and BOM for the system in preparation for fabrication.

Alpha Mission, Cornell University | *Embedded Software, Antennae Tuning* August 2023 – Present
High Altitude Balloon - Integration and Testing

- Developed electrical and software systems for the high-altitude balloon deployment.
- Programmed test scripts for all flight board systems.
- Wrote technical procedural documentation for requirement verification.
- Designed and Tested LORA and GPS Dipoles for Solar-Sail-mounted Chips.

AWARDS

Dean Archer Undergraduate Research Award June 2024 - August 2024

- Assembled and tested the flight board circuit's power system, microcontroller, sensors, and actuators—led software development of embedded flight code for sensor data monitoring, control tasks, and data downlinks.
- Ran power budgeting tests for Alpha CubeSat, plotting current and voltage across solar panels, flight computers, and batteries.