Ryan Lee

929-909-8414 | rl693@cornell.edu | linkedin.com/in/rl693 | US Citizen

EDUCATION

Cornell University Ithaca, NY

B.S. in Mechanical Engineering GPA: 3.5/4.0 *Expected May 2026*

- Relevant Coursework: Heat Transfer, Fluids, System Dynamics, Aeronautics, Dynamics, Materials, Thermodynamics, Circuits for Electrical Engineers, Digital Logic and Computer Organization, Differential Equations, Linear Algebra, Computer Networks and Telecommunications

EXPERIENCE

Cornell Racing Formula SAE September 2022 – Present

Team Lead *Ithaca, NY*

- Leading technical development, operations for 60-member team developing an electric Formula-style racecar
- Responsible engineer for design, analysis, manufacturing, and testing of the high voltage battery system
- Primary battery module designer over two years, developing wire-bonded cylindrical cell and pouch cell modules
- Conceptualized and designed localized analog to CAN bus converters and car breakout box boards in Altium

Applied Intuition June 2025 – Present

Engineering Intern *Mountain View, CA*

- Responsible for full stack hardware and software integration of automotive zonal architecture for 3 unique vehicles
- Led firmware development, hardware testing and integration of 10BASE-T1S ethernet based I/O aggregator board
- Created firmware drivers, applications in C, C++ for vehicle body controls involving CAN, LIN, ethernet

SpaceX May 2024 – August 2024

Engineering Intern *Redmond, WA*

- Conceptualized, designed, completed $50,000 mechanical test fixture for Starlink antennas using NX, ANSYS
- Created electrical, pneumatic, control systems for multiple antenna production and test fixtures
- Managed hardware reliability campaign simulating 8 years of pressure, thermal, humidity cycles for PCBAs, dishes
- Performed root cause analysis and debugging on mechanical, electrical issues for PCBAs and antennas

ABL Space Systems May 2023 – August 2023

Engineering Intern *El Segundo, CA*

- Designed avionics, mechanical, test hardware used in ground systems and RS1 rocket for payload integration team
- Created portable electro-mechanical device for simulating and validating payload and fairing separation systems
- Designed actuating mechanism validating payload signals integrated on Flight 2 rocket using Siemens NX, ANSYS
- Developed ground systems PCBs in Altium Designer and electrical harnesses to be integrated into future rockets

LEADERSHIP

Spacelab International Space Station Experiment

Team Lead and Mechanical Engineer

- Led a team of 10 to develop a biological experimental capsule sent on the International Space Station for a month
- Designed 2"x 2"x 4" sized custom capsule with camera, pumps, PCB, closed fluid system to sustain experiment
- Examined the bacteria Cupriavidus Necator ability to produce polyhydroxyalkanoates bio-plastics in micro-gravity

Cornell SSDS CubeSat Team

Avionics Subteam Lead

- Led avionics team for project testing deployers for light sails with shape-memory alloy frames inside the ISS
- Responsible for overall electrical architecture, firmware control loops, and interfacing mechanical components
- Primary designer of flight computer PCB created in Altium and machined support structures made in Solidworks

RELEVANT SKILLS

Software: Siemens NX, ANSYS, 3D Experience/CATIA, SolidWorks, Autodesk Inventor, MATLAB, Keyshot, Altium Designer, KiCAD, Autodesk Fusion 360 (CAD, CAM), Python, C, C++, Java, SQL

Design Engineering: GD&T, 3D Printing (FDM, SLA, SLS), CNC Machining, Parametric Modeling, Tolerance Stackups, Rapid Prototyping, Sheet Metal, Wire Harnessing, Manual Milling, Soldering, PCB Rework, PCB Design, PCB Bring-ups