

Sean Fruman

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY
Master of Engineering in Aerospace Engineering, **GPA: 3.44**

Expected May 2027

Cornell University, College of Engineering, Ithaca, NY
Bachelor of Science, Mechanical Engineering | Dyson Business Minor for Engineers, **GPA: 3.44**

May 2026

Selected Coursework: Additive Manufacturing • Mechanics of Engineering Materials • Fluids and Heat Transfer Laboratory • Spacecraft Technology & System Architecture • Mechatronics • System Dynamics • Spaceflight Mechanics • Propulsion of Aircraft and Rockets

SPECIALIZED SKILLS

Technical: ANSYS Workbench, LabVIEW, Autodesk Fusion 360, Autodesk Inventor, MATLAB, Python, Excel

Professional: Teamcenter PLM, Siemens NX, Ansys Icepak

Language: Russian (fluent), French (basic)

LEADERSHIP EXPERIENCE

Team Lead, *Cornell Mars Rover*, Ithaca, NY

Aug 2025-May 2026

- Leading and administering a 50+ student project team with the objective to design, build, and test a rover system to annually compete in the University Rover Challenge
- Coordinating weekly work sessions and all-hands meetings as well as overseeing preliminary, critical, and final design reviews; maintaining online communication through Slack and documentation through Confluence
- Managing budgets, processing orders, and overseeing outreach to industry sponsors as well as fundraising through our alumni network; Organizing networking sessions connecting members with industry-leading partners

Music Department Lead, *Red Hook Art Project*, Brooklyn, NY

Jun-Aug 2024

- Educated school-age children with prepared lessons on rudimentary guitar exercises, basic music theory, and music composition with digital audio workstations and Musical Instrument Digital Interface tools
- Developed and taught original lessons on musical scales and rhythm using self-created presentations, helping students translate theory into their own musical ideas
- Engaged and communicated with children from diverse ethnic backgrounds through language barriers

ENGINEERING EXPERIENCE

Mechanical Engineering Intern, *L3Harris Technologies*, Salt Lake City, UT

Jun 2025-Aug 2025

- Developed a test procedure to verify thermal conductivity of interface materials using commercial off-the-shelf and custom machined parts, defining requirements from heat transfer calculations
- Designed stackable Input/Output test modules in Siemens NX and prototyped with Multi Jet Fusion 3D printing
- Gained exposure to ANSYS Icepak for electronic packaging thermal analysis and authored environmental analysis reports (fluid contamination, sand & dust, explosive atmosphere) to validate designs for customer review

RELEVANT ACADEMIC PROJECTS

Wind Blade Design Optimization, *Fluids and Heat Transfer Lab*, Cornell University

Oct-Dec 2025

- Collaborated with a group of 2 peers to design and optimize miniature wind turbine blades using blade element theory and NACA 4412 airfoil sections to maximize aerodynamic efficiency
- Validated performance through wind tunnel power curve testing while ensuring low structural stress at the blade root

Original Design Project, *Mechanical Synthesis*, Cornell University

Jan-May 2024

- In a team of 3 people, led the CAD design for a backpack-mounted bottle holder that securely carries reusable bottles of varying sizes
- Developed a multi-material solution using 3D-printed TPU with ratcheting strap for flexible bottle retention and a PLA clip for secure external backpack attachment

ACTIVITIES and INTERESTS

Electric Buffalo Records: student band member; organize and participate in events; coordinate show logistics with businesses
Guitar; Music Production and Engineering; Electronic Music Synthesis