

Avram Dreyer

Curriculum Vitae

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EDUCATION

Cornell University, Ithaca, NY

Bachelor of Science, Mechanical Engineering

Aug. 2025 - May 2029

GPA: 4.06/4.3

- Activities: ASME, Studio Photography Club, Amateur Radio Club
- Relevant Coursework: MATH 1920, MATH 2930, ENGRD 2020, CS 1112, ENGRI 1100, CHEM 2090

Bergen County Technical High School - Teterboro, Teterboro, NJ

High School Diploma, Aerospace Engineering

Sep. 2020 - Jun. 2025

GPA: 3.99/4.0

- Honors: National Honor Society, High Honor Roll, Departmental Award for Physics
- Relevant Coursework: AP Calculus BC, AP Physics C, AP Computer Science Principles, Digital Electronics, Applied Aerospace Engineering

HONORS AND GRANTS

NASA HUNCH CubeSat Satellite Competition Finalist

Apr. 2025

Selected as one of five finalists to present at Johnson Space Center in Houston, TX

Departmental Award for Physics

Jun. 2025

Bergen County Technical High School - Teterboro

RESEARCH EXPERIENCE

Research Intern

Sep. 2024 - June 2025

Stevens Institute of Technology, Hoboken, NJ

- Interned under Professor Nicholas Parziale's research group, conducting hypersonic fluid dynamics research
- Studied hypersonic boundary layers using Krypton Tagging Velocimetry (KTV) in the Mach 6 Stevens Shock Tunnel
- Contributed to graduate-level fluid dynamics research for the US Navy Office of Naval Research (ONR)

WORK EXPERIENCE

Course Development Intern

Nov. 2024 - June 2025

New Jersey Center for Teaching and Learning (NJCTL), Remote

- Worked as a part-time intern improving NJCTL's online physics courses in AP Physics 2
- Created answer keys and explanations for physics exercises using Moodle software

Camp Counselor

Jun. 2024 - Aug. 2024, Jun. 2025 - Aug. 2025

Camp Wigwam For Boys, Waterford, ME

- Led and mentored a bunk of campers while managing an activity area
- Educated kids in model rocketry and other STEM projects
- Assisted in the successful construction and launch of a high-powered I-engine model rocket

PROJECTS

NASA HUNCH CubeSat Satellite Thermal Heatsink

Sep. 2024 - Apr. 2025

- Collaborated to design and build a novel prototype of a spacecraft thermal management system for a 1U CubeSat satellite
- Competed in the NASA HUNCH space hardware design competition
- Selected as one of five finalists for its category and chosen to be presented at Johnson Space Center in Houston, TX, to NASA engineers

LEADERSHIP & SERVICE

Member, American Society of Mechanical Engineers (ASME)
Cornell University

Aug. 2025 - Present

Member, Studio Photography Club
Cornell University

Aug. 2025 - Present

Member, Amateur Radio Club
Cornell University

Aug. 2025 - Present

TECHNICAL SKILLS

Technologies: Python, Autodesk Fusion 360, Autodesk Inventor, MATLAB, ANSYS Mechanical, Arduino

Skills: Soldering, Digital Electronics, Numerical Simulation, 3D Design, Analytical Reasoning

Interests: Hiking, Electronic Music, Climbing, Reading