

# **Avram Dreyer**

## **Curriculum Vitae**

Hillsdale, NJ — ajd335@cornell.edu — (201) 898-9735  
avramdreyer.com

### **EDUCATION**

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#### **Cornell University, Ithaca, NY**

Bachelor of Science, Mechanical Engineering  
GPA: 4.06/4.3

Aug. 2025 - May 2029

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

#### **Bergen County Technical High School - Teterboro, NJ**

High School Diploma, Aerospace Engineering  
GPA: 3.99/4.0

Sep. 2020 - Jun. 2025

- 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**

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#### **NASA HUNCH CubeSat Satellite Competition Finalist**

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

Apr. 2025

#### **Departmental Award for Physics**

Bergen County Technical High School - Teterboro

Jun. 2025

### **RESEARCH EXPERIENCE**

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#### **Research Intern**

Stevens Institute of Technology, Hoboken, NJ

Sep. 2024 - June 2025

- Interned under Professor Nicholaus 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**

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#### **Course Development Intern**

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

Nov. 2024 - June 2025

- 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**

Camp Wigwam For Boys, Waterford, ME

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

- 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**

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#### **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**

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**Member**, American Society of Mechanical Engineers (ASME) Aug. 2025 - Present  
Cornell University

**Member**, Studio Photography Club Aug. 2025 - Present  
Cornell University

**Member**, Amateur Radio Club Aug. 2025 - Present  
Cornell University

## **TECHNICAL SKILLS**

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**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