

# Ethan J. Moger

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## EDUCATION

### Cornell University | Duffield College of Engineering

Ithaca, NY

Major: Mechanical Engineering

Aug 2024 - May 2028

Cumulative GPA: 4.251

Relevant Coursework: Physics I/II, Thermodynamics, Differential Eqs, Statics, Calculus I/II/III, Intro to Computing (Python)

### Queensbury Senior High School

Queensbury, NY

NYS Advanced Regents Diploma with Honors, Seal of Distinction in Math & Science

Sep 2020 - Jun 2024

International Baccalaureate Diploma

Class Rank: 1 / 241 | GPA: 99.320 / 100.000

## WORK & RELEVANT EXPERIENCE

### Cornell University Hyperloop Project Team

Ithaca, NY

Mechanical Subteam Member; Magnetics

Sep 2025 – Present

- Utilize Ansys Maxwell to model, analyze, and create a linear induction motor to propel the levitating pod
- Support materials selection and structural analysis to achieve lightweight, durable, and high-speed performance
- Collaborate with cross-disciplinary teams to integrate mechanical systems with magnetic and control components

### Yankee Boating Center

Lake George, NY

Dock Staff, Marina Rental Coordinator

Jun 2022 – Aug 2025

- Maintained a fleet of 40+ boats, taught renters how to operate boats, and drove rental boats onto trailers for service
- Promoted to inside staff the third year, oversaw phone inquiries, educated renters about the lake, and handled reservations
- Helped direct the dock staff and streamline operations using strong interpersonal and organizational skills

### Glove Dryer Design & Provisional Patent

Queensbury, NY

Member/Contributor

Sep 2022 - Jun 2023

- Developed a soccer goalie glove-drying system through research and design with a focus on material preservation
- Designed and 3D printed the product in OnShape, incorporating feedback and advice from engineering professionals
- Presented the prototype to a panel of engineers and applied for and was granted a provisional patent

## LEADERSHIP EXPERIENCE

### Physics 1112 / PHYS 2213 Learning Assistant

Ithaca, NY

Undergraduate TA

August 2025 - Present

- Facilitated collaborative problem-solving in discussion sessions to support peer learning in calculus-based physics
- Enhanced communication and teaching skills through weekly seminars on physics education theory and reflective practice
- Partnered with faculty to promote inclusive instruction and provide feedback to improve course delivery and engagement

### Adirondack Solar Alliance

Queensbury, NY

Co-Founder

Dec 2021 - Present

- Co-founded a not-for-profit organization that has raised over \$100,000 to install solar panels in Adjuntas, Puerto Rico
- Assembled and gave formal presentations to local businesses, securing financial support for past and future projects
- Developed the donation page, coordinated technology-related tasks for fundraising, and participated in the first installation

### New York American Legion Boys State

Morrisville, NY

Officer of Environmental Sustainability

Jun 2023 - Jun 2023

- Selected through a competitive interview process to attend a leadership event focused on government and leadership
- Gained insights into governmental operations, decision-making processes, and leadership strategies during the event
- Elected as the Officer of Environmental Sustainability, responsible for promoting and learning about sustainable practices

## AWARDS

### President's Award for Educational Excellence

Queensbury, NY

- Successfully completed the entire International Baccalaureate Diploma Program
- Outstanding growth, improvements, and commitment to intellectual development

Sep 2022 - Jun 2023

### RIT Science & Math Scholarship

Queensbury, NY

- Achieved superior grades in science and math-related classes
- Pursuing college-level course work with an interest in using science and math in engineering

Sep 2022 - Jun 2023

## ACTIVITIES, SKILLS & INTERESTS

**Activities:** American Society of Mechanical Engineers, Doubles Pickleball League, Intramural Soccer (Captain)

**Skills:** Ansys Maxwell, Fusion 360, MATLAB, OnShape, Python, Microsoft Office, Collaboration, Problem Solving

**Interests:** 3D Printing/Design, Programming, Mountain Biking, Skiing, Pick-Up Soccer, Pickleball, Cliff Jumping, Piano