

Lillia Hammond

Amherst, MA / Hanover, NH • lillia.hammond.ug@dartmouth.edu • [linkedin.com/in/lillia-hammond](https://www.linkedin.com/in/lillia-hammond) • [lilliahammond.com](https://www.lilliahammond.com)

EDUCATION

AMHERST COLLEGE — Amherst, MA

May 2025

Bachelor of Arts Candidate: Physics and Art History GPA: 3.87 STEM GPA: 3.86
Clare Boothe Luce Grant Recipient / Amherst Club Volleyball – Co-Captain & Coach

THAYER SCHOOL OF ENGINEERING, DARTMOUTH COLLEGE — Hanover, NH

June 2026

Bachelor of Engineering Candidate: Mechanical Engineering GPA: 4.00 STEM GPA: 4.00
Dartmouth Women's Club Volleyball / Spare Rib Arts Magazine – Designer

EXPERIENCE

MECHANICAL DESIGN RESEARCHER *Dartmouth College, Hanover, NH*

September 2023 - Present

Lynch Rocket Lab. PI: Prof. Kristina Lynch

- Designing low-cost cross-dipole radio antenna for signal reception during rocket flight
- Creating improved CAD models of rocket payload instrumentation
- Establish consistent, readable drawings for both researchers and machinists to expedite the manufacturing process

PHYSICS REU INTERN *University of California, Santa Barbara – Santa Barbara, CA*

June 2023 - August 2023

Institute for Terahertz Science and Technology. PI: Prof. Mark Sherwin

- Designed an automated rooftop mirror rotation system to improve the signal-to-noise ratio and decrease data acquisition time for high-field electron paramagnetic resonance spectroscopy
- Programmed step-servo to respond to signal feedback via LabView
- Designed and 3D printed a compact, easily removable, non-magnetic probe-servo connector

UNDERGRADUATE RESEARCH FELLOW *Amherst College – Amherst, MA*

June 2022 - May 2023

Hanneke Ion Trap Lab. PI: Prof. David Hanneke

- Implemented a fiber-optic switch element to a wavemeter system to efficiently measure laser wavelengths
- Constructed a fizeau interferometer for laser wavelength measurement
- Programmed an ImageJ plugin for efficiently calculating the wavelength of a laser using an image of its diffraction grating
- Designed and built suspension structure for vacuum-trap alignment used for ion trapping
- Machined 6 clamps for use in a sterilized ion trap

PHYSICS AND CHEMISTRY TA *Amherst College – Amherst, MA*

February 2022 - May 2023

- Mentored 20+ students through introductory Mechanics and Electromagnetism classes
- Guided 25 students weekly through 3-hour Fundamentals of Chemistry labs
- Encouraging dynamic thinking and problem-solving skills
- Provided detail-oriented, encouraging feedback to students on assignments
- Communicated scientific principles by engaging with students 1 on 1 during TA office hours
- Advised students on navigating courses and applying to research internships

SKILLS

Mechanical Design: SolidWorks, Fusion360, 2-axis lathing, 3-axis milling, drilling, CNC operation

Visual Communication: Photoshop, InDesign, Illustrator, Powerpoint

Programming: LabVIEW, Python, MATLAB, Java