Aidan Curtis

New York, NY | acurtis25@amherst.edu |

EDUCATION

Thayer School of Engineering at Dartmouth, Hanover, NH | *Bachelor of Engineering* Expected June 2026
- Electrical Engineering Major | GPA: **3.90/4.00**

Amherst College, Amherst, MA | *Bachelor of Arts* Expected May 2025
- Mathematics Major | Major GPA: **3.95/4.00** | Cumulative GPA: **3.80/4.00**

WORK AND LEADERSHIP EXPERIENCE

Mathematics Teaching Assistant and Grader, Amherst, MA January 2023 - Present
- Teaching assistant for MATH 220 (Mathematical Reasoning and Proofs) and MATH 350 (Groups, Rings, and Fields)
- Led weekly problem-solving sessions to reinforce core concepts in mathematical logic, set theory, group theory, and ring theory.
- Provided individualized support during office hours, helping students strengthen proof-writing skills and abstract reasoning techniques.
- Graded and provided individualized feedback to students on their weekly homework in MATH 272 (Linear Algebra)

Computer Science and Mathematics Peer Tutor, Amherst, MA January 2023 - Present
- Tutored introductory computer science and mathematics students and created customized study problems to address individual learning gaps

PROJECTS

PneumaGlove | *Class Project* | Philip R. Jackson Prize Award Winner August 2023
- Therapeutic glove designed to help individuals with neurological or musculoskeletal disorders, edema, and overuse injuries alleviate hand pain
- Developed a fully embedded electronics system with a microcontroller, MOSFETs, and voltage regulation to control pneumatic actuation.
- Programmed embedded C++ firmware and developed a custom iOS app using Swift to control the glove via Bluetooth

Wordle in VHDL | *Class Project* August 2023
- Programmed an FPGA using VHDL to design a digital circuit that implemented the Wordle algorithm
- Designed SCI communication modules to enable the FPGA to interface with an external terminal via PuTTY.

Heart Rate Monitor | *Class Project* November 2023
- Designed a heart rate monitor circuit from scratch using passive and active electronic components
- Conditioned signals from a microphone using active filters and outputted sound through a speaker with a Class D amplifier
- Integrated all stages into a fully functioning device capable of real-time heart rate detection and audio output.

AWARDS

The Porter Prize May 2022
- Honored by the Amherst Physics and Astronomy department as the highest-achieving first-year student in an Astronomy class

Philip R. Jackson Prize August 2023
- Best overall project in ENGS 21 class out of 13 groups
- Awarded by a review board of Professors and Professional Engineers for our invention of **PneumaGlove**

ATHLETICS

Dartmouth College Men's Varsity Soccer, Hanover, NH August 2023 - Present
- Over 30 hours weekly dedicated to training, lifting, and playing games
- D1 Ivy League student-athlete taking a complete engineering course load

Amherst College Men's Varsity Soccer, Amherst, MA August 2021 - Present
- NESCAC Player of the Week Award, NESCAC Champions 2022, and NESCAC All-Academic Team 2022

SKILLS

- Programming: C, C++, Java, Python, MATLAB, x86 Assembly, VHDL, LaTeX
- Tools: Fusion 360, SolidWorks, LTSpice, KiCad, Eagle
- Embedded Systems: Raspberry Pi, ARM Microcontrollers, Arduino, FPGA