

Dillon Labonte

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EDUCATION

Southern New Hampshire University

Bachelor of Science, Double Major in Electrical Engineering and Mathematics

GPA: 4.00

Manchester, NH

Expected Graduation May 2026

TECHNICAL SKILLS

- **Programming Languages:** C++, Python, LabVIEW, R
- **Electrical and Embedded Systems:** Arduino, ESP-32, Raspberry Pi, digital logic and design, analog circuit design, signal processing, electromagnetic fundamentals
- **Software and Simulation Tools:** Multisim, MATLAB/Simulink, Altium Designer, Fusion PLM
- **Lab Experience:** oscilloscopes, function generators, DMMs, power supplies, breadboard prototyping, PCB soldering
- **Analytical and Computation Skills:** predictive modeling, numerical analysis, GitHub

INTERNSHIP EXPERIENCE

Hubbell Incorporated / Aclara – *Hardware Engineering Intern*

May 2025 – August 2025

- Assisted in high-level communication (HLC) project for EV charger pilot program.
- Contributed to embedded system design and hardware integration, using both Python and C++.
- Gained a greater understanding of both analog and digital circuit analysis.
- Participated in engineering design reviews, product distribution meetings, and general hardware team meetings.
- Exposure to Altium Designer, analyzed schematics for PCB reworks.
- Detailed project work can be found in Final Internship Paper at <https://labontedillon26.github.io/>.

PROJECT EXPERIENCE

Instrumentation and Measurements

- Collaborated on a 3-person team to build a climate monitoring system that measured climate variables such as temperature, humidity, UV intensity, and light intensity.
- Integrated Arduino microcontroller and various sensors to accurately collect and process climate data, allowing for real-time data analysis.
- Developed and optimized software in LabVIEW and Arduino to provide a graphical interface for climate data.
- Applied strong problem-solving and analytical skills to debug software and the hardware connection between Arduino and LabVIEW to successfully achieve a working prototype.

Digital Circuits

- Designed and simulated the data path for a simple dedicated microprocessor as part of an individual final project, showcasing my strong fundamental understanding of digital circuits.
- Implemented key digital circuit components such as multiplexers, registers, D flip-flops, and various other logic gates to create a functional and efficient microprocessor data path.
- Utilized Multisim software to simulate the digital circuit and verify that it worked as intended.

Signals and Systems

- Built and analyzed a resistor-capacitor (RC) circuit to analyze the system in terms of its Fourier Transform and frequency response.
- Created a simulated circuit using the transfer function of the system using Python using numerical Python (NumPy) to analyze the Fast Fourier transform (FFT) input and output and compare that to the physical circuit.
- Applied signal analysis techniques and gained valuable experience with lab instruments.

Additional projects and reports at <https://labontedillon26.github.io/>

CAMPUS INVOLVEMENT AND ACHIEVEMENTS

- **Vice President** - Pi Mu Epsilon math honor society, September 2024 – Present
- **Math Major Ambassador** - Organize events for math majors and math-interested people, August 2024 – Present
- **Lead STEM Tutor** - Wolak Library Learning Center, August 2023 – Present
- **NCAA Division II Student-Athlete** - Men's Cross Country, train 20+ hours per week, August 2022 – Present
- **NE10 Elite 24 Recipient, 2024** - Awarded to the student at the NE10 championships with the highest GPA
- **Elite 90 Recipient, 2024** - Awarded to the student at the National Championships with the highest GPA
- **NE10 Sports Excellence Award, 2024** - Awarded to the student exemplifying the meaning of student-athlete