

# MATTHEW CLOUTIER

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## Education

*Worcester Polytechnic Institute | BS in Electrical & Computer Engineering | Minor: CS* May 2026

- Relevant Coursework: Embedded Systems, Microelectronics, Computer Architecture, Digital Signal Processing, Systems Programming, Computer Networks, Mobile & Ubiquitous Computing
- Current GPA: 3.68 – Dean's List, Five Semesters
- Activities and Involvement
  - Cycling Club – President, Secretary, and Gear Manager
  - Alpha Chi Rho Fraternity – Social Officer and Treasurer's Assistant
  - Alpha Phi Omega

## Experience

*SignalFire Wireless Telemetry – Engineering Intern* May 2023 – August 2025

- Created a web server using Mongoose WS to interact with a radio communications device.
- Utilized Microsoft Visual Studio to add new settings to an existing tool.
- Updated C code to be more efficient and to remedy bugs within radio and cellular devices.
- Instructed on how to use git revision control and used it daily.

*Landry's Bicycles – Sales Associate* March 2021 – August 2023

- Trained in hospitality through a program developed by Dan Mann of the Mann Group.
- Responsible for guiding customers to the product that best suited their needs.
- Developed communication and people skills that brought me to be a top salesperson in 2023.
- Sold \$130,000 of products from May 2023 to August 2023.

## Projects

*Museum of Horrors of Communism in Romania*

- Traveled to Romania to work on a seven-week-long project.
- Worked with a team of three other students to conduct 35 interviews with survivors of the regime.
- Developed an interactive digital museum exhibition to educate children on the history of the regime.

*Developing an Intrusion Detection System for Cybersecurity (Ongoing)*

- Collaborated with a team of three students, a PhD student advisor, and a faculty advisor on developing an intrusion detection system based on pyIDS.
- Manage and preprocess large cybersecurity datasets, including BETH and UNR-IDD.
- Evaluate and analyze model performance to further improve accuracy and robustness.

*Self-Playing Four-Pipe Organ*

- Developed a pipe organ along with three other students consisting of four pipes of variable length. The length was controlled by stepper motors, and the airflow was controlled by solenoids.
- The machine was controlled via Ableton and a serial connection from the computer to each pipe's microcontroller.

*Multi-Cycle Processor*

- Designed and implemented a multi-cycle processor, which could execute basic assembly instructions.

## Skills

Verilog  
MATLAB

Microsoft Visual Studio  
C / C#

Embedded Devices  
Revision Control

Kotlin  
Hardware Design