MATTHEW CLOUTIER

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Education

Worcester Polytechnic Institute | BS in Electrical & Computer Engineering | Minor: CS   May 2026
- Relevant Coursework: Advanced Digital Circuit Design, Embedded Computing, Real-Time Embedded Systems, Engineering with Sensors, Circuits, and Systems, Microelectronics One, Systems Programming
- Current GPA: 3.70 – Dean's List, Five Semesters
- Activities and Involvement
  - WPI Cycling Club – President, Secretary, and Gear Manager
  - Alpha Chi Rho Fraternity – Social Officer and Treasurer's Assistant

Experience

SignalFire Wireless Telemetry – Engineering Intern   May 2023 – August 2024
- 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 and conducted a total of 35 interviews with survivors of the regime.
- Developed an interactive digital museum exhibition to educate children on the communist regime.

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.

Developing Explainable AI for Security of Embedded Devices
- Currently researching previous initiatives using explainable AI for cybersecurity along with three other students.
- The module will utilize explainable AI to screen incoming data to ensure its safety.

FPGA Calculator
- Designed and implemented a calculator using an FPGA board and Verilog.

Embedded Oscilloscope
- Developed an oscilloscope utilizing TI-RTOS to visualize signals.
- Utilized various RTOS features such as timers, semaphores, threads, and interrupts.

Skills

Verilog	Microsoft Visual Studio	Embedded Devices
MATLAB	C / C#	Revision Control
Microcontrollers	FPGAs	Research