

# Simon Caisse

Computer Engineering student seeking embedded systems internship in Northern California.

**Available: Summer 2026 (mid-May)**

4767 Castana Drive  
Cameron Park, CA 95682  
**(530) 556-9924**  
**FrostCaisse@proton.me**

## PROJECT SAMPLE

### EM Rover Display

2024, 2025 - GUI for an EM Rover

Developed a real-time C++ GUI for an EM survey instrument used in professional archaeological fieldwork. The interface features a dynamic GPS-driven map, live signal health monitoring, file management, and instrument configuration. Built with Dear ImGui for an immediate-mode rendering architecture, with state managed via arxiboldi/lager and immer for a functional reactive, immutable data model.

### Aspasia

2025 - Flash Card Application

Developed a cross-platform study application in C++ featuring flashcards, quizzes, and term-matching modes. Architected state management using the arxiboldi/lager functional reactive library, with a responsive UI built in QML and Qt Quick.

### Forget No More

2021 - Face recognition paired with reminder lists

Built an embedded computer vision device on a NVIDIA Jetson Nano that performs real-time facial recognition using Python, OpenCV, and the face\_recognition library. On detection, the device shows a personalized reminder list on the integrated display. Hardware integration spans a camera module, Arduino-controlled NeoPixel array, and custom-fabricated steampunk enclosure.

**Selected Projects: Laser Cane, Sinusoidal Instrument, Gesture Activated Lock Box**

## EDUCATION

### Cleveland State University, Cleveland, Ohio

Candidate for Bachelor of Science in Computer Engineering

AUGUST 2023 - PRESENT Expected graduation: 2027

## WORK EXPERIENCE

### Hangtown Sabre Fencing Club, Placerville, CA

2022 - 2025 Assistant Coach

Designed and led drills for adult and youth classes. Provided 1:1 coaching on mental and physical competition techniques to individual fencers.

### Ciere Consulting, El Dorado Hills, CA

Summers 2024 - 2025 Intern

Developed field instrumentation software for professional archaeological surveys, including the EM Rover Display GUI featured in the projects section. Worked independently and collaboratively to problem-solve, communicate technical plans, and present final designs to stakeholders.

## SKILLS

Python  
C#, C, C++  
Java  
VHDL  
Django  
Godot  
Blender 3D  
Photoshop  
3D printing

## SELECTED CLASSES

Computer Organization,  
Systems Programming,  
Data Structures & Algorithms,  
Operating Systems,  
Circuits 1&2,  
Electronics,  
Advanced Digital Systems,  
Discrete Mathematics,  
Differential Equations,

## ACTIVITIES

NCAA Sabre Fencer  
Men's Team Captain  
SAAC Representative  
Cleveland State

### Art and Technology

I believe that creativity is one of the pillars to human nature. I harness that creative ability in a variety of ways including photography, philosophy, and programming. An engineer is as much an artist as a problem solver.