## Mari Braun

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#### **Education**

### University of Massachusetts Amherst, Computer Engineering Undergraduate

Expected Graduation: May 2027

GPA: 3.91 • Math Minor • Chem Minor

Relevant Coursework:

Calculus III • Linear Algebra • Programming • Circuits and Electronics • Organic Chemistry

## **Holliston High School**

Graduation: May 2023

GPA: 3.80 • Chemistry Award • General Science Award

# **Personal Projects**

## Magnetic Core Memory, November 2023 - Present

Currently creating 256 bytes of ferrite core memory, a technology from the 1960s

Gained experience working with precision circuits

Gained proficiency in using oscilloscopes.

#### 8-Bit-Breadboard-Computer, September 2022 - November 2022

Created a Turing complete computer on 12 breadboards with 16 bytes of memory.

Gained experience making low-level computer logic, and making organized circuits

## Game Development and Modding, May 2017 - Present

Participated in various Game-Jams, and Programmed several mods

Became proficient in reading source code and writing Java and C#

Learned about rendering and optimization

### **Extracurricular Experience**

# **UMass Amherst Makerspace Staff, January 2024- Present**

Taught students lessons on soldering and electronics

Gained experience with machining and welding

Learned how to be productive and disciplined in a job with little instruction

## STEM Head Camp Counselor, July 2024

Organized lessons in programming, game development, and web design

Gave guidance to other camp counselors

Brought a fun and exciting environment to the camp

#### FRC Robotics Captain, September 2022- May 2024

Organized meetings and helped to teach new members robotics tools and concepts

Designed, created, and led one of our robot's subsystems

Created pneumatic systems, milled parts, and wired the robot's electronics

#### Chess Club Founder/Captain, October 2021- May 2023

Created our school's chess club as a way to connect with people during the COVID-19 pandemic Taught lessons about different chess strategies, and organized competitions with other schools