

Emily Telgenhoff

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EDUCATION

Michigan State University, College of Engineering

Computer Science, GPA: 4.0

East Lansing, MI

Jul 2023 – May 2025

- Course Highlights: Software Design, Computer Organization and Architecture, Data Structures and Algorithms
- Activities: MSU Concert Orchestra, Women in Computing

West Point, Department of Electrical Engineering and Computer Science

Computer Science

West Point, NY

Jun 2021 – Jun 2023

- Course Highlights: Cyber Foundations, Data Structures, Digital Logic with Embedded Systems
- Activities: EECS Systems, Strings Club Concertmaster, Spirit Band

EXPERIENCE

Software Engineer Intern

Intrepid Control Systems, Inc.

May 2024 – Present

Troy, MI

- Performed analysis of zstd compression across large amounts of test datasets using Bash and Python
- Assessed improvements in compression statistics to determine the cost-effectiveness of implementation
- Engineered an adaptive algorithm in C++ for zstd compression to dynamically adjust compression levels based on network bandwidth and customer preferences for compression speed and efficiency
- Integrated source code for the adaptive algorithm into embedded datalogger devices

Software Development Intern

Fraunhofer CMW

Nov 2023 – May 2024

East Lansing, MI

- Developed a web-based system using PHP and JavaScript AJAX technologies to track completion of employee trainings across the entire office
- Worked with a large MySQL database to run and store data based on user input throughout the website
- Applied adjustments communicated through higher echelons in order to maintain an efficient software design

ICER Intern

MSU Institute for Cyber Enabled Research

Sep 2023 – May 2024

East Lansing, MI

- Utilized Python with SQLAlchemy to maintain SQLite databases containing various environment data points from geographical locations all around the state
- Worked with the Geography department to maintain and update the source code for a program to help track weather related data points
- Leveraged MkDocs site technology and GIT version control to develop and maintain course website content for a graduate level course in Cloud Computing

Team Leader

United States Army

Jun 2021 – Jun 2023

West Point, NY

- Responsible for the successes and failures of the freshman cadets, acted as their first line with any issues or needs
- Communicated with leadership to understand and disperse information to my peers and my mentees
- Performed military duties and taskings as they were assigned

Software Development Intern

Michigan State University

Jun 2020 – Aug 2020

Midland, MI

- Developed Flask application to store and track information of temperature sensors around the Michigan State University Campus
- Communicated with supervisors and team members on features to add in development
- Created a database using MySQL to store the user and sensor data for the website

SKILLS

Languages: C/C++, Python, ARM, SQL, PHP, HTML/CSS, JavaScript, Bash

Frameworks: React, Flask, Bootstrap, Selenium

Developer Tools: Git, JetBrains, Visual Studio