

Benjamin D. Miller

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EDUCATION

University of Michigan

Master of Science and Engineering in Computer Science and Engineering

Ann Arbor, MI

Aug. 2022 – May 2024

Michigan State University, with Honor (3.87/4.0)

Bachelor of Science in Computer Science and Engineering, Cognate in Business

East Lansing, MI

Aug. 2018 – May 2022

PROJECTS – BENJAMILLER.COM

Wildfire Risk Forecast Tool, WRiFT | *Python, Flask, HTML, JavaScript* | School

- Produced an open source, web-based wildfire simulator using **Flask**, targeting at-risk areas in California, as part of a semester-long capstone project with the Anthropocene Institute
- Created an intuitive data entry form with **JavaScript** and **HTML** which prefills historic weather data or selects custom parameters, passed to the backend for simulation
- Calculated environmental, health, and economic costs using **Python** from data generated by the simulation
- Received the Amazon Sigma Award for the top project out of 30 teams

Discord Bot, BenBot | *Python, MongoDB* | Personal

- Implemented a robust Discord Bot using **Python**, capable of performing over 10 interactive commands
- Implemented **MongoDB** to store and retrieve messages, enabling scheduled future message retrieval
- Leveraged multithreading to handle concurrent tasks, ensuring efficient time-based operations and real-time message monitoring

Portfolio Website | *JavaScript, React, HTML, CSS* | Personal

- Created a personal portfolio website using **React** and **JavaScript** to creatively showcase my accomplishments
- Deployed and hosted the website on **GitHub Pages** with a custom domain name acquired through Squarespace
- Implemented dynamic animations and interactive features using **JavaScript**, **HTML**, and **CSS**, including light/dark mode, expandable project sections, and responsive design for smaller screens

Tower Defense Based Game | *C++* | School

- Developed a **C++** bloons tower defense style game, utilizing object-oriented programming principles such as classes for balloons and towers, and inheritance to extend properties of each
- Received an award for tower creativity by implementing an innovative Road Runner tower

Multipurpose GPA Calculator | *HTML, PHP* | Personal

- Constructed and hosted a web-accessible GPA calculator to address the lack of options for the 0.5 grade scale
- Implemented an **HTML** form with two modes: A final GPA calculator to determine the GPA with new grades added, and a target GPA calculator to identify the grades required to achieve a desired GPA

EXPERIENCE

Data Annotator

Dec. 2023 – Present

DataAnnotation

Remote

- Create coding related prompts, in Python, C++, JavaScript, HTML and CSS, for experimental chatbots to reply to over multi-turn conversations
- Analyze responses for efficiency, readability, correctness, and potential harmfulness
- Compare, select, and explain the superior response between two chatbot replies to a prompt, aiding in chatbot training

Student Manager

Oct. 2018 – July 2022

Michigan State University Culinary Services

East Lansing, MI

- Effectively communicated goals with team members and delegated tasks to ensure high levels of customer satisfaction
- Assessed and addressed staffing and supply needs across multiple sites on campus to maintain smooth operations

TECHNICAL SKILLS

Languages: Python, C/C++, SQL, JavaScript, HTML/CSS

Developer Tools: Git, VS Code, PyCharm, MongoDB