Margaret Holman

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Education

UNIVERSITY OF MICHIGAN   **Ann Arbor, MI**
College of Engineering   **May 2026**
B. S. E. in Computer Science
Minor in UX/UI Design

- <u>Relevant Course Work</u>: Data Structures & Algorithms, Computer Organization, Cyber Security, Foundations of Computer Science, Discrete Mathematics, Linear Algebra, Web Development & Accessibility, Calculus II

Technical Skills

- Languages: C++/C, HTML, CSS, JavaScript, SQL, Python,
- Frameworks/Tools: VS Code, Microsoft Visual Studio, Git, WordPress, Sitecore, Bootstrap, Adobe, Figma, Microsoft Office

Experience

MATIV   **Atlanta, GA**
Web Development Intern – Information Technology Team   **April 2024 – August 2024**

- Collaborated with a team of developers to migrate the Risk Management System from an Access database to a SQL database, improving data accessibility and storage capacity, and redesigned the system's interface to enhance reporting capabilities
- Independently designed 5 webpages for the company's new website scheduled for a 2025 launch. Utilized Figma for creating responsive designs across mobile, tablet, and desktop views, and crafted custom logos with Adobe Illustrator
- Conducted comprehensive ADA compliance audits using Access Scan and Lighthouse on 100+ company webpages identifying accessibility issues. Performed website updates in the Sitecore and WordPress CMS and administered user experience and usability testing

FREELANCE DESIGNER   **Bay City, MI**
Artist   **June 2022 – August 2023**

- Developed portfolio websites for students at University of Michigan, facilitating connections with recruiters by translating their requirements into responsive user-friendly designs
- Designed custom t-shirts for various clubs at U of M, blending creativity with client needs to deliver visually appealing designs
- Participated in 2 art fairs selling original paintings and painted rocks, and won first place for age group

Projects

ADVANCED BANKING SYSTEM SIMULATOR – C++

- Developed a robust banking transaction simulator in C++, utilizing object-oriented programming principles and efficient data structures including priority queues and hash maps
- Implemented command-line interface functionalities for user interactions, including user registration, login/logout, transaction placement, and query handling
- Integrated IP-based user authentication and transaction timestamp management for accurate transaction tracking and fraud prevention. Designed and implemented algorithms for transaction execution, fee calculation, and transaction history management

NPL & MACHINE LEARNING FORUM POST CLASSIFIER – C++

- Developed a Naive Bayes Classifier to automatically identify the subject of posts from Piazza, utilizing natural language processing (NLP) and machine learning techniques
- Implemented training and prediction algorithms that process labeled Piazza posts, calculating log-probability scores to classify new posts based on learned word distributions and label frequencies
- Leveraged a Bag of Words Model to extract unique words from posts, ensuring efficient and accurate classification by incorporating word probabilities and label priors

WEB SERVER FOR OFFICE HOURS QUEUE -- C++

- Developed a RESTful web server using C++ that manages an office hours queue. Implemented endpoints using HTTP methods (GET, POST, DELETE) to interact with a custom linked list structure
- Utilized C++ with STL for rapid prototyping of queue functionalities. Demonstrated proficiency in memory management, including dynamic memory allocation and deallocation, constructors, and destructors

Leadership & Professional Development

TAU EPSILON KAPPA – Professional Technology Fraternity
Vice President   **March 2024 – Present**
VP of Marketing   **March 2023 – March 2024**

- Oversee the executive board of 8 members, supporting their committees to ensure smooth operations for the 120+ member fraternity. Facilitate bi-weekly meetings and maintain the shared drive for organizational efficiency
- Directed the fraternity's social media presence, crafting professional and informative content. Utilized Canva and Adobe Illustrator to design original logos, banners, merchandise, and infographics, elevating the organization's relevance on campus