Ashton E. Thomas

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Education

University of Michigan - Rackham Graduate School Ann Arbor, MI
Major - MSE Computer Science *03/2024 - 04/2026*

University of Michigan College of Engineering Ann Arbor, MI
Major - BSE Computer Science *08/2022 - 12/2024*
GPA - 3.8 / 4.0
Relevant coursework: Data Structures & Algorithms, Web Development, Computer Vision, Object-Oriented Programming, Cryptography, Web Systems, Data Analytics, Quantum Computing, Computer Organization

Experience

MHackers, Ann Arbor, MI 08/2022 - Present
Software Developer
- Collaborated with a 3-person team leveraging Python, Keras, and Git to develop machine learning models.
- Engineered a geolocation AI that utilizes panoramas from an API to predict locations, achieving an accuracy rate of approximately 90%.
- Worked with fellow web developers to craft responsive websites using HTML, CSS, and JavaScript.

Madi Taylor Photo, Traverse City, MI 06/2021 - 08/2023
Full Stack Developer
- Designed and sustained the corporate website, crafting a cohesive user interface with HTML, CSS, and JavaScript.
- Implemented robust back-end payment solutions and form validation to streamline user transactions.
- Collaborated with a professional photographer to curate high-quality images for marketing campaigns.

Projects

Instagram Clone, Web Systems, Ann Arbor, MI 01/2024 - 02/2024
- Constructed an Instagram Clone in three stages: a static site using HTML, Python, and CSS; a server-side dynamic site with SQL, Flask, enabling features like user logins, content management, and interactions; and a client-side dynamic version with JavaScript, REST APIs, and React for seamless content updates without reloads, introducing infinite scroll and double-tap to like functionality.

Geoguessri AI, MHackers, Ann Arbor, MI 09/2023 - 12/2023
- Developed a Geoguessr AI using Keras and TensorFlow to predict locations from panoramas with a 90% accuracy rate, utilizing grayscale image processing and machine learning algorithms on data sourced from the Mapillary API.

3-D Puzzle Solver, Data Structures & Algorithms, Ann Arbor, MI 09/2023 - 09/2023
- Designed a C++ program for solving complex 3-D maze puzzles using DFS and BFS algorithms, with enhanced features for navigating through buttons, doors, and traps, and the capability to output solutions in list or map format based on getopt_long command line options.

Web Post Sorter, Programming & Data Structures, Ann Arbor, MI 04/2023 - 04/2023
- Produced a machine learning program that utilizes naive Bayes algorithm and leverages binary search trees to classify online web posts by topic, achieving approximately 88% accuracy through recursive methods.

Office Hours API, Programming & Data Structures, Ann Arbor, MI 03/2023 - 03/2023
- Engineered a high-performance back-end API for the University of Michigan Office Hours website, leveraging a linked-list data structure to streamline GET, POST, and DELETE requests in an online queue system.

Technical Skills

Coding Languages: C, C++, Python, Javascript, CSS, HTML
Tools: Git, SQL, Windows, Mac, Matlab, VS Code, Excel, Latex, Keras

Personal Website

Link: https://aethom00.github.io/