Ashton E. Thomas

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EDUCATION

University of Michigan College of Engineering   Ann Arbor, MI

Major - 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, User Interface Development, Computer Organization

EXPERIENCE

MHackers, Ann Arbor, MI   15 hrs weekly | 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   30 hrs weekly | 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

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.

Bank Simulator, Data Structures & Algorithms, Ann Arbor, MI   11/2023 - 11/2023
- Constructed an online banking infrastructure simulator capable of parsing input files, managing user operations, detecting fraud, executing priority transactions, calculating fees with 5% loyalty discounts, generating various financial reports, and performing robust error handling.

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/