

Matthew Chin

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Experience

Digital Media Engagement Lab, UMD

College Park, MD | February 2025 - Present

Undergraduate Researcher - Data Visualization Team

- Contributed to an Undergraduate Research team focused on analyzing Digital Media Interaction data (N=1500+) to explore engagement metrics, interaction patterns, and attention data.
 - Co-Developed a live news web scraper and a Chrome Extension to scrape/extract article metadata, and visualize those points (e.g word count, publication date, images, media presence, interaction) from local journalism platforms.
 - Engineered real-time data visualizations using **JavaScript**, **Chart.js**, and **HTML/CSS**, applying **DOM parsing** to execute research and support the lab mission of understanding Digital Media Engagement metrics.
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National Institute of Standards and Technology (NIST)

Gaithersburg, MD | July 2022 - August 2023

Cybersecurity Framework Student Researcher

- Participated in open-source discussions, panels, and collaboration to implement and restructure the NIST Cybersecurity Framework, and the five core functions (Identify, Protect, Detect, Respond, Recover) in a simulated remote environment, focusing on risk assessment methodologies and control implementation
 - Contributed to development of Python scripts for the analysis of the new cybersecurity framework's effectiveness.
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Stone Rehabilitation and Senior Living

Newton, MA | August 2020 - May 2023

IT Technician & Receptionist

- Executed precise data entry for patient records into a specialized database, enhancing the efficiency of information management and ensuring data integrity.
 - Provided exceptional customer service by warmly greeting visitors, addressing inquiries, and facilitating a welcoming atmosphere that prioritized resident satisfaction.
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Projects

Baltimore Banner Scraper (JavaScript, HTML, CSS) | *Web Development, Data Scraping, Data Visualization*

- Co-Engineered a Chrome Extension using JS, HTML, CSS, and **Chart.js** to scrape and plot key article metrics and metadata (word count, date, images, headers) from the *Baltimore Banner*, a local news website.
- Leveraged Chrome Extensions API (**Manifest v3**), **Web Storage**, **DOM Parsing**, and content scripts for real-time data extraction/restructuring, and UI rendering.

Minesweeper Game Clone (C++)

- Dynamic Board Generation & Difficulty Scaling: Designed randomized mine placement algorithms with adaptive board sizes and densities across difficulty levels (Beginner, Intermediate, Expert) to simulate classic Minesweeper mechanics.
 - Enhanced User Interface: Implemented color-coded numerical indicators for mine proximity, leveraging C++ graphics libraries to improve visual feedback.
 - Optimized Memory & Data Handling: Utilized advanced Data Structures and C++ Standard Library containers to manage board states and actions efficiently across variable grid sizes.
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Education

University of Maryland, College Park

College Park, MD 20742

Bachelors of Science, **Computer Science**

Class of 2027

Coursework: Object Oriented Programming I / II, Calculus I / II, Linear Algebra, Discrete Structures, Computer Systems, Applied Probability & Statistics, Algorithms, Organization of Programming Languages

Certifications & Skills

- **Developing Machine Learning Solutions** (AWS, Coursera)
- Environment Variable & Set UID Lab
- **Java | Python | C**
- CompTIA Security+ (In-Progress)
- Seal of Biliteracy (Spanish + English, 2022)