

AINSLEY FREEDMAN

Columbus, OH (willing to relocate)

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Education

Emory University

Bachelor of Science in Mathematics/Computer Science

August 2023-May 2027

Atlanta, GA

Relevant Coursework

Data Structures and Algorithms, Analysis of Algorithms, Computer Architecture/Machine Level Programming, Machine Learning, Computer Science Practicum, Discrete Math, Calculus I & II, Multivariable Calculus, Linear Algebra, Numerical Analysis, Mathematical Statistics I

Experience

CAV (Cognition and Visualization) Lab

March 2025 – Present

Undergraduate Research Assistant

Atlanta, GA

- Collaborated with graduate researchers to explore ways to identify and mitigate confirmation bias in interactive visual environments by analyzing user behavior in web-based visual tasks.
- Adapted and customized an existing D3.js web application by modifying data-binding logic and interaction handlers in HTML, JavaScript, and D3.js, allowing users to dynamically explore visual stimuli and record behavioral responses.
- Implemented a client-side logging system using JavaScript event listeners to track user interactions, enabling data-driven analysis of cognitive bias patterns.

The Home Depot

May 2025 – July 2025

Software Engineer Intern

Remote

- Built and deployed a production-ready offline switch for POS systems by creating a simulated offline mode that allowed testing and operation without disconnecting network hardware, reducing register recovery time by 37.5% (4→2.5 mins).
- Created a Grafana dashboard by integrating Prometheus metrics to visualize real-time register and store health, empowering store leaders to proactively identify and resolve technical issues.
- Conducted end-to-end testing on registers at the Marietta Technology Center and in a live store environment, validating new features under enterprise-level security standards and real-world network conditions.

Technical Projects

The CompPendum Blog | *HTML, CSS, Bootstrap, JavaScript, Node.js*

September 2024-Present

- Built a computer science education blog using HTML/CSS and Bootstrap for a responsive UI, with Node.js powering backend functionality and email routing through Nodemailer.
- Designed interactive features and published articles to foster engagement and build a collaborative learning community.

ChaiTunes A Cappella | *Next.js, Tailwind, EmailJS, Supabase*

August 2025-September 2025

- Developed and deployed a full-stack website for Emory's ChaiTunes A Cappella, using Next.js and Supabase for secure authentication and data storage.
- Created a responsive Tailwind CSS interface with automated communication via EmailJS, deployed on Vercel for long-term scalability and reliability.

Analyzing Antisemitism: Insights with ML | *Matplotlib, pandas, scikit-learn*

January 2025-February 2025

- Processed and modeled antisemitism-related datasets using pandas and scikit-learn to identify patterns and forecast future trends.
- Visualized results with Matplotlib and presented insights to the American Jewish Committee (AJC), contributing data-driven recommendations for advocacy efforts.

Core Competencies and Technical Skills

Languages: Java, Python, C, JavaScript, HTML, CSS, SQL (SQLite)

Tools/Technologies: Git, React, Bootstrap, Tailwind, Phaser.js, jQuery, Angular, REST APIs, Figma, Matplotlib, pandas, scikit-learn, MATLAB

Core Competencies: SDLC, Agile Methodology, Communication, Customer-Focused Solutions, Team Collaboration, Leadership, Problem Solving, Time Management, Organization, Frontend Development

Leadership and Community Engagement

Girls Who Code

September 2024 – Present

Risk/Event Manager, Instructor

Atlanta, GA

- Led weekly coding classes for ~20 girls, creating and presenting instructional content.
- Mentored students to build coding skills and confidence in problem-solving.