AINSLEY FREEDMAN

Columbus, OH (willing to relocate)

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Education

Emory University **August 2023-May 2027**
Bachelor of Science in Mathematics/Computer Science *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 on a research project exploring identification and mitigation of confirmation bias in interactive visual environments.
- Adapted and customized a web-based application using HTML, JavaScript, and D3.js, enabling users to interact with dynamic visual stimuli.
- Implemented interaction logging to collect behavioral data for analysis of potential 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, reducing register recovery time by 37.5% (4 mins → ~2.5 mins) and improving uptime during degraded network states.
- Created a Grafana dashboard providing store leadership with real-time visibility into register and store status, enabling proactive monitoring and decision-making.
- Successfully tested new features on real registers at the Marietta Technology Center and in a live Home Depot store, ensuring enterprise-level security and reliability.

Technical Projects

The CompPendium Blog | *HTML, CSS, Bootstrap, JavaScript, Node.js* **September 2024-Present**
- Developed a computer science blog to share with other students and learners interested in computer science.
- Utilized HTML, CSS, and Bootstrap for frontend and Node.js for backend to enable email submissions.
- Fostered a learning community by providing a platform for engagement, question-asking, and support.

ChaiTunes A Cappella | *Next.js, Tailwind, EmailJS, Supabase* **August 2025-September 2025**
- Engineered and deployed a full-stack website using Next.js for the frontend and Supabase for backend services, enabling data storage and authentication.
- Designed a clean and responsive UI to improve site usability across desktop and mobile platforms.
- Deployed and maintained the application to ensure performance, reliability, and scalability for long-term use.

Analyzing Antisemitism: Insights with ML | *Matplotlib, pandas, scikit-learn* **January 2025-February 2025**
- Leveraged data analysis and machine learning techniques to identify patterns and forecast future trends.
- Designed and implemented visualizations with Matplotlib Pyplot to communicate findings to diverse audiences.
- Shared insights and projections with the Cincinnati chapter of the American Jewish Committee (AJC), contributing to ongoing discussions and initiatives aimed at addressing campus antisemitism.

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.