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

Assistant

 $Under graduate\ Research\ Assistant$

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% ($4\rightarrow2.5$ 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

TrAIding Post | Next.js, Tailwind, Supabase, JavaScript, Python (data/API integration)

September 2025-Present

- Engineered dashboards translating multi-agent AI outputs into transparent, evidence-backed trading insights.
- Optimized front-end architecture using feedback loops, LLM-driven APIs, and real-time data visualization to improve interpretability and scalability.

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

August 2025-September 2025

- Developed and deployed a serverless full-stack website for Emory's ChaiTunes A Cappella using Next.js and Supabase for secure authentication, data storage, and role-based content updates.
- Engineered a responsive, production-ready interface with Tailwind CSS and automated outreach workflows via EmailJS, enabling seamless external contact and scalable deployment on Vercel.

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.