

AIDAN HALL

[Personal Website](#) | [LinkedIn](#) | [GitHub](#)

EDUCATION

Duke University

Aug 2023 – May 2027

Double Major, B.S. in **Computer Science**, B.S. in **Mathematics**; **Digital Intelligence Certificate**

Durham, NC

Relevant Coursework: Applied Machine Learning, Digital Systems, Mathematical Cryptography, Algorithm Design, Computer Architecture, Data Structures, Advanced Probability, Real Analysis, Linear Algebra, Advanced Multivariable Calculus, Discrete Math, Mathematical Finance

Cumulative GPA: 3.9/4.0 | 2x Dean's List with Distinction | CS Department Outstanding Teacher Assistant Award

York Community High School

Aug 2019 – May 2023

Relevant Coursework: ACP Calculus III, DE 2D Game Design Honors, AP Computer Science, AP Statistics, AP Physics

Elmhurst, IL

SAT: 1560/1600 | W GPA: 4.9/4.0 | UW GPA: 4.0/4.0 | AP Scholar with Distinction | PTA Scholar | NHS

WORK EXPERIENCE

UI/UX Intern

Sep 2026 - Current

Taco Bell Foundation

Remote

- Helping improve **UX design** and educational resources to improve clarity and engagement for college students, helping them be able to graduate from college debt-free.
- Chosen from a large pool of applicants to be a member of the **Founding Student Advisory Board** for the platform.

AI & DevOps Intern

June 2026 – Aug 2026

MetLife

Cary, NC

- Engineered an agentic AI development platform that converts Azure DevOps requirements into production-ready GitHub pull requests via **MCP-enabled tooling** and **self-expanding knowledge repositories**, reducing development time by up to **96%**.
- Designed AI red-team environments for prompt injection and data leakage testing, creating repeatable security validation for internal LLM deployments.
- Built intelligent document analysis systems for large-scale PDF and text comparison, streamlining migration, compliance, and validation workflows; credentialed with **Microsoft Azure AI Fundamentals (AI-901)** and advanced **Azure AI** and **Power Platform training**.

Software Engineer Intern

May 2025 – Aug 2025

Dexter Axle Company

Lisle, IL

- Designed a robust PO-attachment automation system leveraging Azure Functions and D365 APIs; converted a manual 1-minute file upload workflow into a 5-second email-forward process, now used daily by 11 planners, **saving ~2,860 hours** and **\$160K–190K annually**.
- Re-architected two parcel-charge and tracking pipelines by porting legacy C#/SQL jobs into Azure Logic Apps and modular SQL Server views; implemented fan-out/merge patterns and multi-level parallelism to **reduce latency by 80%**, eliminate all data duplication, and restore SLA-grade confirmation alerts.

Machine Learning Research Assistant

Sep 2025 – May 2026

Duke University, Dalia Patino-Echeverri Lab

Durham, NC

- Contributed to research within Duke's **\$2.9M ALIGN Initiative**, a national collaboration with **Google**, the **Georgetown Climate Center**, and former **FERC Commissioner** Allison Clements, advancing scalable solutions for renewable integration and grid modernization.
- Created a calibrated wind generation model for PJM wind farms using Python, NREL SAM, NASA POWER, and EIA turbine data, achieving a **99.1%** correlation with actual 2023 generation. Produced a final research paper detailing the model and its results.

Teaching Assistant for COMPSCI 230, COMPSCI 231, MATH 222, and MATH 230

Jan 2025 – Dec 2025

Duke University, CS/Math Department

Durham, NC

- Served as a teaching assistant, leading weekly recitations and office hours for **four different courses**, collaborated with faculty and fellow TAs to design course materials and refine instructional strategies, supporting **150+ students** each semester.
- Provided individualized support through office hours, online Q&A, and graded advanced mathematical proofs and problem sets.
- Won the **Duke 2025 Outstanding TA Award** for excellence in teaching discrete mathematics.

PROJECTS

Marrow Health - AI Calorie Tracker | [APP STORE](#) | [WEBSITE](#)

Aug 2026 – Current

- Shipped Marrow Health solo, currently has over **4k users** within 7 weeks of launch.
- Built an **open source MCP** server and OAuth 2.1 relay that lets ChatGPT, Claude, and Gemini query **115+ Apple Health data types**.
- Automated the full iOS release pipeline **without a Mac**, backed by a 1,590-assertion verification suite.

ClassPulse – Teaching Assistance Platform | [GITHUB](#) | [DEVPOST](#)

Feb 2026

- Won **2nd Place at HackDuke 2026** for the code we created and presentation to judges within the interactive media track.
- Developed a React-based student and teacher platform with AI-centered work analysis, live classroom dashboards, smart-glasses alerts, and personalized explanation videos using OpenAI, Gemini, Remotion, and ElevenLabs.

SKILLS & ACHIEVEMENTS

- Programming & Frameworks:** Java · C · Python · Dart/Flutter · TypeScript/JavaScript · SQL · HTML/CSS · MIPS · Verilog
- Tools & Platforms:** Azure Logic Apps · Dynamics 365 · n8n · OpenAI Swarm · Vertex AI Studio · Flask · React · AWS S3 · GitHub
- Game & Simulation Tech:** Unreal Engine 4 · Unity · GameMaker · Pico-8 · Godot · Logisim · JFLAP · Desmos
- Awards:** Taco Bell Live Más Scholar (4× Award Recipient · \$20,000 total) · Morehead-Cain Scholarship Semifinalist (UNC Full Ride Award ~\$320,000 potential) · ICTM Regional Champion (2×) & State Top 10 Scorer (3×) · Illinois Math League (IML) & ICTM Perfect Scorer, Del Meitz - Thomas Nelson Outstanding Math Award · West Suburban Math League (WSML) MVP Math Leadership Award
- Activities:** Theta Chi Fraternity · Club Rowing · Adaptive Explorers · Hackathons · Duke FOCUS · Math Union · Weightlifting