

# Aidan Ehrenhalt

Atlanta, GA | U.S. Citizen | 215-740-4100 | AidanEhrenhalt@gmail.com | linkedin.com/in/aidanehrenhalt

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## Education

### Georgia Institute of Technology

**B.S. in Computer Engineering, Minor in Applications of AI/ML**, Major GPA: 3.30

First Generation Transfer Student, First Generation Peer Mentor

December 2026

### University of Pittsburgh,

Awards: Dean's Honor List, GPA: 3.31

August 2021 - May 2022

## Skills

**Languages:** Python, SQL, Java, JavaScript, C/C++, MIPS Assembly, HTML, CSS, MATLAB

**Cloud & Big Data:** Google Cloud (BigQuery, Vertex AI, IAM), AWS (S3, Lambda, DynamoDB, IAM), Docker

**APIs & Analytics:** Google Marketing Platform, Google Ads API, Google Cloud APIs, OAuth2, ETL Pipelines

## Experience

### Bayer, Data Engineer Co-op

January 2024 - August 2024

- Built scalable ETL pipelines in BigQuery to extract and centralize data into Google Cloud Storage
- Developed a Seasonal Analogue ML Model using TensorFlow, applying regression techniques to improve accuracy
- Deployed ML Models as a Vertex AI Endpoint, integrating with GCS Buckets and Model Registry for production use
- Automated deployment workflows with Vertex AI Python SDK, reducing integration time and improving reliability

### BrainDo, Analytics Engineer Intern

May 2023 - August 2023

- Designed ETL pipelines integrating Google Ads with BigQuery using GMP APIs and SQL, centralizing analytics data
- Implemented GTM tracking pixels in JavaScript/HTML for a **Fortune 500** client, enabling enhanced site tracking
- Conducted QA testing for website launches, data layer implementations, redirects, logins, and e-commerce tracking
- Engineered data transformations in Google Apps Script with optimized BigQuery schema for scalable storage
- Configured Google Cloud projects with OAuth2 authentication for secure API-backed workflows
- Analyzed **Fortune 500** client data to improve accuracy, reduce costs, and optimize performance

### BrainDo, Analytics Engineer Intern

May 2022 - August 2022

- Completed Google Analytics Academy and Skillshop certifications on Google Marketing Platform
- Utilized BrainDo's custom internal GTM framework to implement tracking tags for client projects
- Conducted UA to GA4 audits for four clients, including a **Fortune 500** company, ensuring accurate migration
- Researched and developed a potential analytics migration service for **client proposal**

### Future Computing with Rogues Gallery, Researcher / Engineer

August 2022 - December 2022

- Worked with the near-memory computing team. Previous work done by the group includes investigating the Lucata Pathfinder architecture and its uses
- Utilized pointer chase and created a visualization using CMake (C/C++) for micro-benchmark of the Lucata Pathfinder architecture to compare several functions with performance of x86 architecture

### Sancho Pistola's, Software Consultant & Bar Back

May 2021 - June 2021

- Proposed introduction of standard, scalable communication practices by analyzing workflow gaps with management
- Improved team logistics by shifting away from ad-hoc group chats to clear, structured documentation via Google Docs
- Maintained inventory and ensured readiness of workstations during 10-12 hour shifts in a high-demand environment
- Consistently met operational demands while sustaining precision and timeliness during peak hours

## Projects

### CS 3300: Introduction to Software Engineering

May 2025 - July 2025

- Created Wikejo, an open-source federated wiki platform enabling users to host, manage, and maintain articles
- Collaborated in a 5-member team using agile methodologies, applying best practices in requirements analysis, documentation, iterative development, QA testing (white-box & black-box), and GitHub workflows
- Implemented features supporting federation, enabling collaboration and content exchange between wiki databases
- Explored AI optimization and prompt engineering, applied LLMs (ChatGPT, Gemini, Eraser.io, LucidChart) across design and testing use cases, generating code, unit tests, and diagrams while evaluating various performance metrics

### **ECE 4795: GPU Programming for Video Games**

*May 2025 – July 2025*

- Developed PBR shaders in Unity (HLSL) using Cook-Torrance BRDFs and microfacet models (Beckmann, GGX)
- Built custom vertex and fragment shaders for real-time lighting, texturing, and post processing (bloom, motion blur)
- Analyzed tradeoffs between per-pixel and per-vertex lighting and explored deferred vs. forward rendering pipelines
- Explored GPU architectures and optimized rendering through parallelization and shader-level efficiency techniques

### **ECE 4150: Cloud Computing**

*January 2025 – May 2025*

- Built full-stack cloud applications (photo library with search and tagging) using AWS S3, SQL/NoSQL, and Lambda
- Deployed and containerized services with EC2 and Docker, ensuring portability across virtual environments
- Designed and managed REST API endpoints via AWS API Gateway, integrating serverless functions with external clients utilizing cloud storage and distributed databases for production-ready systems

### **CS 2340: Objects & Design**

*August 2024 – December 2024*

- Developed Spotify (Re)Wrapped, a Spotify Wrapped style web app using Django (Python) and MVC design patterns
- Implemented customized solutions for parsing Spotify API and front-end visualization without use of Spotify library
- Collaborated within an agile team environment, managing version control, feature integration, and peer code reviews
- Deployed web app to a live site, gaining hosting, deployment, production-level debugging, and QA experience

## **Leadership**

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### **Executive Board, Ski and Snowboard Club @ Georgia Tech**

*May 2023 – Present*

- **Vice President of External Affairs (April 2025 - Present):** Directed outreach, events, and publicity efforts; supported brand partnerships to boost engagement and led promotional campaigns to increase trip visibility
- **Logistics Committee (May 2024 - April 2025):** Coordinated large-scale ski trips, including Chile and other international trips. Managed lodging, travel arrangements, and vendor negotiations for tickets and equipment
- **Competitive Team Committee (May 2023 - April 2024):** Organized team transportation and represented Georgia Tech in USCSA Southeastern Conference General Body Meetings

### **1StepAt A Time Foundation, Co-Founder**

*December 2015 – Present*

- Founded a non-profit organization providing clean drinking water to villages in Cambodia
- Raised over \$35,000 through fundraising initiatives and incorporated the foundation as a registered non-profit in 2016

## **Activities**

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### **SSC@GT, Logistics Committee: Revelstoke, BC**

*March 2025*

- Orchestrated international travel to Revelstoke, BC, coordinating logistics for 55+ attendees from YYC/YLW airports
- Managed and negotiated rates with vendors for lodging arrangements, lift tickets, equipment, and transportation
- Directed ground transportation logistics, ensuring smooth transfers between airports and Revelstoke for all attendees
- Led emergency response for an on-mountain injury by coordinating medical care with local doctors, securing supplies, and arranging transport to YKA airport for return travel