

# AYDAN J. GERBER

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## EDUCATION

**Cornell University, Ann S. Bowers College of Computing & Information Science**  
*Candidate for Bachelor of Science in Information Science; Concentration in Data Science*  
**Cumulative GPA: 3.82/4.0**

**Ithaca, NY**  
*Expected, May 2028*

**Iona Preparatory School**  
**GPA: 98.75 | SAT: 1570 (Verbal: 790, Math: 780)**

**New Rochelle, NY**  
*Graduated, June 2024*

## PROFESSIONAL EXPERIENCES

**theCoderSchool**  
*Computer Science Instructor*

**Scarsdale, NY**  
*May 2024 – August 2025*

- Instructed 60 K-12 students in coding through private lessons and group classes resulting in increased understanding of computer science
- Introduced engineering concepts through Lego robotics such as gears, motors, and piston designs resulting in a deeper understanding of physics
- Fostered coding skills using Java and Python through hands-on interactive coaching and programming concentrating on game development

**Iona University**  
*Teaching and Lab Assistant, Physics 101*

**New Rochelle, NY**  
*June 2023 – August 2023*

- Facilitated 12 lab setups, devised a detailed kinematics experiment, and created a comprehensive 20 page instructional manual with diagrams
- Guided 15 students through assignments in kinematics, forces, and energy resulting in increased understanding of material and concepts
- Repaired old lab equipment and assisted students throughout lab setup and execution allowing for better conceptual understanding

**Outamation**  
*Extern*

**Remote**  
*May 2025 – July 2025*

- Built an AI-powered classification system for mortgage documents using open-source LLMs (Mistral-7B and Phi-2) with improved accuracy
- Optimized Retrieval-Augmented Generation pipelines using embeddings, hybrid retrieval, and custom chunking to improve speed and relevance
- Benchmarked model performance with DocLLM and LlamaIndex, delivering recommendations that increased data-extraction accuracy by 30%

## RESEARCH EXPERIENCES AND ACTIVITIES

**Cambridge University Press & Assessment**  
*Independent Researcher & Author*

**Remote**  
*September 2022 – May 2023*

- Applied topic modeling with Latent Dirichlet Allocation to machine learning study on social media discourse with a focus on sustainability
- Found insights into how consumers and businesses interact with sustainability topics on social media and key trends in discussion on “X”
- Highlighted the dominant topics of discussion such as global corporate sustainability practices, environmental activism, and green technology
- Paper published in Environmental Data Science journal by Cambridge University Press, DOI: 10.1017/eds.2024.4

**Cornell Fintech Club**  
*Financial Analyst*

**Ithaca, NY**  
*September 2024 – present*

- Evaluate and present pitches on private tech/SaaS companies ( $EV < \$1b$ ) to invest in and determine appropriate exit strategy for investors
- Collaborated on FinSight AI, a fintech chatbot leveraging Retrieval-Augmented Generation (RAG) to deliver financial information to users
- Achieved a 90% accuracy in delivering up-to-date financial news and analysis and interviewed 20+ potential users to understand pain points

**Student Activities Funding Commission**  
*Financial Consultant*

**Ithaca, NY**  
*September 2024 – present*

- Offer financial planning, compliance, and logistics services by allocating \$2M+ of funds across 900 on-campus organizations within Cornell
- Collaborate with Cornellian governance streamlining \$400k distribution among administrative organizations, improving student and campus life

**Manhattanville College**  
*Research Assistant*

**Remote**  
*June 2023 – August, 2023*

- Conducted statistical analysis on Barbuda’s vegetation comparing data from before the 2017 hurricane to 2019 post-hurricane Irma figures
- Identified a 15% decrease in overall native Barbuda vegetation and observed the introduction of 7 new species to the island due to hurricane
- Analyzed vegetation distribution and found that the hurricane led to a shift in more resilient and drought resistant plants for optimal survival

**Cornell Data Science Project Team**  
*Team Member*

**Ithaca, NY**  
*September 2024 – present*

- Collaborated on a project to develop a machine learning model predicting state-level SAT scores using socioeconomic and demographic data
- Applied data preprocessing and visualizations improving prediction accuracy with a 15% reduction in error compared to baseline models
- Leveraged Python and Pandas to build and evaluate supervised learning models through hyperparameter tuning and cross-validation

## AWARDS, SKILLS, & INTERESTS

**Awards:** Regeneron Science & Engineering Fair (WESEF): 2<sup>nd</sup> overall & Ricoh Sustainable Development Award, Westchester-Rockland Junior Science & Humanities Symposium 3<sup>rd</sup> place: Speaker in Behavior III Category, First Honors, AP Capstone Diploma, AP Scholar with Distinction

**Relevant Skills:** Python, Data Analysis, Natural Language Processing (NLP), Product Strategy, Communication, Leadership

**Interests:** Tennis, Weightlifting, Boxing, Sustainability, Technology, Philosophy, Poker