Zelan Eroz Espanto

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EDUCATION

Case Western Reserve University

Cleveland, OH

Bachelor of Science in Computer Science and Mathematics

Aug 2024 - May 2028

GPA: 3.9 (Dean's High Honors List)

Relevant Coursework: Data Structures and Algorithms, Multivariable Calculus, Discrete Mathematics, Linear Algebra Affiliations: Association of Computing Machinery - Women (Marketing Chair), CWRU Quants, ThinkImpact Fellow

RELEVANT PROJECTS

Flick (React, Nodeis, SQL)

Mar 2025

Developed a full-stack campus-based social media app that allows users to post thoughts, share events, and interact in real-time, fostering localized digital community engagement across student networks.

Research on Stochastic & Deterministic Algorithms for Electroencephalography Data Denoising

May 2024

Compared stochastic and deterministic algorithms for EEG signal denoising, contributing to knowledge on artifact removal accuracy; achieved an A grade on the IB Extended Essay, placing in the top 8% of students globally;

ClubHub (Java, Java Swing, MySQLite, OAuth 2.0, Google Sign-in API)

Oct 2023

Built a multi-role student organization management system; deployed at my high school to manage 70+ clubs, streamline inventory tracking, and automate attendance monitoring for club events.

EXPERIENCE

Department of Computer and Data Sciences

Cleveland, OH

Teaching Assistant for CSDS 233: Introduction to Data Structures

Jan 2025 - Present

- Sole freshman on a six-member TA team, supporting 151 students through grading, technical troubleshooting, and academic guidance during and beyond class hours.
- Contributed actively to homework ideation, regrading policy creation, and course and grading enhancement.

Beats by Dre Cleveland, OH

Consumer Insights Data Analyst Extern

Nov 2024 - Feb 2024

- Selected for a competitive cohort analyzing consumer sentiment in the audio tech industry.
- Utilized Python, NLP tools, and Gemini AI to extract product insights and deliver a data-driven capstone on innovation and market strategy.

Beacon Cleveland, OH

Founder

Nov 2024 - Present

• Founded and developed a year-long mentorship and career readiness program for 7th–9th grade students in Cleveland; developed Value Proposition Model, program syllabus; launching pilot in Fall 2025.

Career Center Cleveland, OH

Career Consulting Intern

Oct 2024- Present

- Curates and distributes bi-weekly newsletters, connecting about 2500 students to opportunities, events, and career development resources.
- Dedicates 7 hours per week to providing personalized resume reviews and career guidance.

Fish2Meta and Chubu University

Karuizawa, Japan

Pioneering Data Science Intern

Sep 2022 - Jan 2024

- Reduced data generation time by 50% and ensured consistent weekly reporting by developing Python source code to automate data extraction, cleaning, and visualization from whiteboard images of subjects' results.
- Recruited and trained 4 new student researchers, enhancing team efficiency through workshops in research design and coding in Python.

AWARDS

Karl Lemmerman Award for First-Year Writing | Case Western Reserve University | (Dec 2024)

United World College Shelby Davis \$40,000 Annual Scholarship | Karuizawa, Japan | (May 2024)

National Youth Excellence in Science Award | Department of Science and Technology of the Philippines | (Dec 2023)