

Alexander J Prospal

Cleveland, OH

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Education

Case Western Reserve University	Cleveland, OH
Bachelor of Science in Computer Science	
Bachelor of Arts in Economics (Quantitative Methods Track)	
Minor: Artificial Intelligence	Expected Graduation: 2028
Campus International High School	Cleveland, OH
Honors Diploma	
Weighted GPA: 4.59 — Rank: 1 of 54	Graduated: 2024

Relevant Coursework

Algorithms, Data Structures, Database Systems, Machine Learning, Data Visualization (R), Programming in Java, Python Programming, Linear Algebra, Discrete Mathematics, Statistics, Computer Security, Microeconomic and Macroeconomic Theory

Projects

Theater Inventory Database System	CSDS 341: Intro to Database Systems
<ul style="list-style-type: none">Designed and implemented a relational database system to manage a theater troupe's inventory, including costumes, props, and showsCreated a normalized SQL schema with clearly defined primary keys, foreign keys, and integrity constraints to enforce data consistencyWrote and tested complex SQL queries involving multi-table joins, aggregations, and nested subqueries to answer realistic business questionsBuilt a Python application and command-line interface to interact with the database, process user input, and execute parameterized SQL queriesImplemented database initialization and population scripts to load structured sample data for testing and demonstrationDocumented system design decisions, schema structure, and query logic in a comprehensive final report	

Technical Skills

- Programming Languages:** Java, Python, R, SQL
- Computer Science Concepts:** Algorithms, Data Structures, Databases, Machine Learning
- Mathematics:** Linear Algebra, Discrete Math, Calculus, Statistics

Additional Information

- Strong communication skills developed through collaborative academic work
- Highly organized, dependable, and attentive to detail in fast-paced, public-facing environments
- Comfortable following established policies and procedures while taking initiative to address issues proactively
- Calm and professional under pressure; able to balance multiple responsibilities independently and as part of a team