Nahom S. Zewdie

2819 Cornet CT♦
Silver Spring, MD 20904
240-486-9145 ♦
Nahomzewdie12@gmail.com

EDUCATION

University of Maryland **College Park, MD**
College of Information Studies **Cumulative GPA: 3.8**
Bachelor of Science in Information Science, InfoSci Expected: May 2025

Dean's List Recipient

Major Related Courses

Object Oriented Programming	Database Design and Modeling	Statistics
Human-Centerd Cybersecurity	Advanced Data Science	Practical Hacking
Dynamic Web Application	Data Sources and Manipulation	

Skills

Design, develop and test software applications. Java, Python, C/C++, SQL, ReactJS, javascript, HTML/CSS, JSP, Git, AWS

Experience / Projects

Database Creation and Management

Utilized SQL to Develop Comprehensive Database from MTA Transit-Oriented Development Dataset

- Demonstrated proficiency in SQL by designing and implementing a robust database system from the Metropolitan Transportation Authority (MTA) Transit-Oriented Development Dataset.
- Leveraged advanced SQL querying techniques to extract, transform, and load (ETL) data from diverse sources within the MTA dataset, ensuring accuracy and efficiency in data processing.
- Implemented normalization techniques to organize and structure data effectively, enhancing accessibility and optimizing database performance.
- Employed relational database management principles to establish relationships between entities, facilitating seamless data retrieval and analysis.
- Incorporated data validation protocols to maintain data integrity and consistency, ensuring the reliability of the database for analytical and reporting purposes.
- Collaborated with stakeholders to understand requirements and refine database design iteratively, aligning with organizational objectives and user needs.
- Provided training and documentation to internal teams on database usage and best practices, fostering widespread adoption and proficiency among users.

`Data Visualization and Analysis

Utilized Tableau to Convey Impact of Exercise on Mental Health using CDC's BRFSS Data

- Applied Tableau expertise to transform raw data from the CDC's Behavioral Risk Factor Surveillance System (BRFSS) into compelling visualizations that highlighted the correlation between exercise habits and mental health outcomes.
- Developed interactive dashboards and visualizations that effectively communicated complex relationships and trends within the BRFSS dataset, enabling stakeholders to gain actionable insights into the importance of exercise for mental well-being.
- Employed data aggregation and visualization techniques to present key metrics and trends, including prevalence of depression and anxiety disorders across different exercise frequency levels, facilitating data-driven decision-making and advocacy efforts.
- Collaborated with public health professionals and stakeholders to identify meaningful KPIs and metrics related to mental health and exercise, tailoring visualizations to address specific research questions and objectives.
- Leveraged storytelling features in Tableau to craft narratives around the data, effectively engaging audiences and conveying the significance of exercise as a preventative measure against mental health disorders.
- Conducted thorough data validation and quality assurance processes to ensure accuracy and reliability of visualizations, adhering to best practices in data visualization and analysis.
- Presented findings and insights derived from Tableau visualizations to diverse audiences, including healthcare professionals, policymakers, and community stakeholders, fostering awareness and advocacy for mental health promotion through exercise.

Software Development

Developed Python Program to Sort Books by Library of Congress Call Number

- Designed and implemented a Python program to efficiently sort a collection of books based on their Library of Congress call numbers, utilizing object-oriented programming principles and advanced data parsing techniques.
- Created a custom `Book` class with attributes for call number, title, and author, and implemented comparison methods to enable sorting of `Book` objects by call number.
- Utilized regular expressions to parse call numbers into their constituent parts, ensuring accurate and consistent sorting behavior across diverse call number formats.
- Developed robust input handling mechanisms to read book information from tab-separated text files, enabling seamless integration with external data sources and facilitating scalability for large datasets.

- Implemented sorting algorithms leveraging Python's built-in sorting functionality, optimizing performance and ensuring efficient processing of book collections of varying sizes.
- Collaborated with stakeholders to understand requirements and iterate on program features, incorporating feedback to enhance functionality and usability based on user needs.
- Documented codebase and provided comprehensive documentation outlining program functionality, usage instructions, and design rationale, facilitating ease of maintenance and future development efforts.

Certificates

Available upon request