Daniel Coblentz

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Education

Hood College   **Aug. 2023 – May 2026**
Bachelor of Science in Computer Science   *Frederick, MD*

Frederick Community College   **Aug. 2021 – May 2023**
Associate Degree in General studies   *Frederick, MD*

Relevant Coursework

- Data Structures
- Computer organization
- Algorithm analysis
- Database Management
- Artificial Intelligence
- Applied Computing I
- Discrete Math
- Calculus II

Experience

Web Development intern   **May 2024 – August 2024**
International Help   *Remote*

- Implemented features on a nonprofit website using HTML, CSS, Google Data Studio, to display health worker metrics in various locations around the world by creating an interactive map showing health worker deployment and project outcomes, which increased user engagement on the website by 20%
- Led the cleaning, analysis, and visualization of diverse datasets sourced from the nonprofit's database, ensuring data accuracy and relevance.
- Developed custom scripts and functions to automate data processing and enhance data visualization capabilities, streamlining workflow and reducing manual effort.

Undergraduate Teaching Assistant   **August 2024 – Present**
Hood College   *Frederick, MD*

- Lead discussion sections and office hours for over 40 students to ensure understanding of course material, including: OOP principles, loops, methods, and classes.
- Collaborated with Professor Jiang Li in developing course materials, including assignments and exams, ensuring they align with learning objectives and promote student success.
- Graded coding projects and assignments, conducted code reviews, and provided feedback to help students improve their coding skills.

Projects

Event-flow | *Python, HTML, CSS, JavaScript,SQL, Google Cloud Console, Git*   **April 2024 - Present**

- Designed and developed a CRUD web application for event management, using Python, SQL, HTML, CSS, and JavaScript with secure configuration practices. Implemented essential CRUD operations for robust data storage and retrieval.
- Implemented user authentication, profile management, and organizer permissions features. Created a user-friendly web interface with dedicated routes for displaying event information and adding new ones, combining front-end design with back-end functionality.

Spell Checker | *Java, Git*   **May 2024 - May 2024**

- Developed an advanced text processing tool utilizing a Ternary Search Trie (TST) data structure to efficiently tokenize and validate words against a predefined dictionary, optimizing the spell-checking process.
- Implemented the Levenshtein distance algorithm, providing precise alternative suggestions for misspelled words, resulting in a 92 percent accuracy rate in correction suggestions.

Box Office predictive analysis | *R, Git*   **August 2024 - August 2024**

- Conducted an in-depth analysis of Hollywood box office data using R, involving data cleaning, visualization, and the application of statistical models to examine domestic gross earnings.
- Developed and evaluated linear regression models to predict domestic gross income, incorporating variables like opening weekend earnings and audience scores, with a focus on differentiating financial outcomes across genres.
- Implemented model diagnostics to evaluate model performance, including residual analysis and simulation of datasets, ensuring robust predictions and insights into Hollywood film earnings.

Technical Skills

Languages: Java, Python, C++, HTML, CSS, JavaScript, SQL, R
Developer Tools: VS-Code, Eclipse, Google Cloud Platform, IntelliJ, Eclipse, Docker, Figma, Git
Technologies/Frameworks: GitHub, WordPress, Flask