Noah Ewell

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Education

Weber State University May 2026
B.S. Computer Science *Current GPA: 3.7/4.0*
Relevant Coursework: Data Structures & Algorithms, Web Programming, Computer Architecture, Software Engineering, Discrete Structures, SQL Programming, Calculus II.

Technical Skills

Languages: Java, JavaScript, HTML5, CSS3, SQL, PHP
Databases: MySQL
Frameworks: Node.js, Express.js, Bootstrap, JQuery
Tools: Git, GitHub, Xampp, FileZilla, VS Code, Eclipse
Methodologies: SCRUM, Agile, SaaS

Projects

E-Commerce Shopping Site | *PHP, SQL, MySQL, HTML/CSS* Dec. 2023
- Developed a robust back-end system using **PHP** and **MySQL**, supporting user authentication, product management, and shopping cart functionality with secure session handling.
- Implemented dynamic database management for user accounts, product catalogs, and order tracking, utilizing **SQL** queries for efficient **CRUD** operations.
- Ensured data integrity and security with prepared statements to **prevent SQL injection** and built a simple front-end interface to facilitate user interactions with the back-end.

Disney Shortcuts (Not Affiliated) | *Java* Dec. 2023
- Developed a pathing application using **Swing** for an interactive GUI, which employs **Dijkstra's algorithm** to calculate and visually display the shortest path between various rides at Disneyland Theme Park.
- Created an **EdgeWeightedGraph** by implementing mouse-event listeners and handlers, allowing users to click on points in the GUI to dynamically generate a **.csv file** containing edge weights and vertices, feeding it into Dijkstra's algorithm.
- Utilized a **Red-Black Binary Search Tree (RedBlackBST)** for efficient data management and fast retrieval of ride information.
- Used **Swing Draw** components for real-time path visualization with interactive features like color changes and path clearing.

Monopoly Simulation | *Java* Dec. 2023
- Developed a Monopoly simulation to analyze property landing probabilities over millions of turns.
- Used a **Stack** to efficiently simulate card deck operations, including push/pop for chance and community chest cards, closely mimicking actual board game behavior.
- Implemented a **Red-Black Binary Search Tree (RedBlackBST)** as a symbol table to manage property and player information, ensuring efficient data retrieval and storage.
- Heavily documented and tested the code using **JavaDoc comments** and comprehensive **unit tests** to ensure reliability and accuracy of the simulation.

Volunteering

Programming Club Officer (President, 8 Months) Aug. 2023 – Present
Salt Lake Community College *Taylorsville, UT*
- Designed and facilitated weekly **Java** programming challenges modeled after **LeetCode** problems, enhancing members' **algorithmic thinking**, **data structure knowledge**, and familiarity with coding interview techniques.
- Explained key programming concepts such as time and space complexity, encouraging participants to optimize solutions through advanced techniques like **dynamic programming**, **memoization**, and efficient **sorting algorithms**.
- Led **SLCC's largest technical club**, achieving Tier IV status by recruiting and engaging 100+ active members, while spearheading the development of the club's constitution to formalize roles and responsibilities.
- Organized and hosted over 30 events, including workshops and panels, while **collaborating** with community initiatives such as She-Tech and STEM-Fest, contributing to broader outreach in promoting technical education.