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Seth Clover

(405) 763-8884
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Education

Iowa State University **Expected: 05/2026**
Bachelor of Science in Software Engineering *Ames, Iowa*

Iowa State University **Expected: 05/2026**
Bachelor of Arts in Philosophy *Ames, Iowa*
GPA: 3.56
Relevant Coursework: Object-oriented Programming, Discrete Mathematics, Data Structures & Algorithms, Software Development Practices, Computer Architecture, Database Management Systems, Probability and Statistics, Software Testing, Advanced Programming Techniques, Computation Theory, Software Architecture and Design, Algorithm Design and Analysis

Experience

CyLife | *Java, Spring Boot, JavaScript, Android Studio, MySQL, HTML/CSS, Git* 08/2024 – 12/2024
- Led backend development for a full-stack Android application, utilizing Spring Boot for API development, Android Studio for mobile integration, and MySQL for relational data storage, centralizing student clubs and organizations into a cohesive platform
- Designed and implemented WebSocket-based real-time chat and notification systems, enabling instant communication between club members and providing real-time event updates
- Developed and optimized MySQL database schemas with efficient indexing and entity relationships, ensuring scalable and high-performance data management for users, clubs, and events

Home Haven | *JavaScript, React.js, Node.js, Express, MongoDB* | *(MERN)* 10/2024 – 12/2024
- Developed a RESTful API using Express.js and MongoDB, enabling secure user authentication, trip bookings, and data retrieval for seamless frontend integration
- Created a responsive and user-friendly frontend for Home Haven using the MERN stack, integrating MongoDB, Express, and Node.js to create seamless interactions with backend services
- Designed and implemented scalable user management, including account creation, updates, and deletions, ensuring efficient data handling and secure transactions
- Directed an intuitive and user-friendly interface with React state management and hooks, ensuring smooth navigation and interactivity

Dungeon Crawler | *C, C++, Git* 1/2025 – Current
- Designed and implemented a procedurally generated dungeon crawler in C, featuring dynamic room creation, corridor building, and stair placement using Perlin noise for terrain hardness variation
- Developed a custom file I/O system to save and load dungeon states in a binary format, ensuring data integrity with big-endian conversions and error handling
- Utilized advanced data structures, including a Fibonacci heap, to optimize pathfinding and distance calculations utilizing Dijkstra's Algorithm, enhancing game performance
- Employed modular programming principles with separate compilation units, leveraging header files for maintainability and scalability

Technical Skills

Languages: Java, C, C++, Python, JavaScript, Kotlin, HTML/CSS, Assembly

Frameworks/Tools: Git, React.js, Node.js, Express.js, MySQL, MongoDB, Neo4j, Spring/Spring boot, Android Studio

Clubs and Activities

Computer Science and Software Engineering Club (CSE) 01/2023 – Present
Birding Club, Iowa State University 08/2023 – Present
Mountaineering and Climbing Club, Iowa State University 08/2023 – Present
Ames Collegiate Chess Club, Iowa State University 10/2022 – Present