

Katherine (Katie) Sandeen

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Education

Oregon State University Expected Fall 2025

Computer Science Bachelor of Science, GPA: 4.0

Coursework: *Data Structures* | *Web Development* | *Assembly* | *Intro to Databases* | *Algorithms*

University of North Florida 2012

Bachelor of Fine Arts, GPA: 3.18

Experience

Data Structures Course Teaching Assistant | Oregon State University April 2024 – Present

- Partner with professor to optimize learning for 400 students, demonstrating project management skills
- Mentor students on AVL trees, heaps, & hash maps, showcasing expertise in data structures
- Facilitate class discussion boards, addressing & resolving technical inquiries effectively
- Conduct office hours for personalized support on advanced course topics, highlighting problem-solving skills
- Evaluate student work with a focus on time complexity & algorithmic efficiency, emphasizing analytical skills

Equipment Technician & Consultant | Georgie's Ceramic & Clay Co. October 2016 – Present

- Analyze diagnostic data to troubleshoot & resolve equipment issues, applying problem-solving skills
- Design & facilitate monthly workshops on kiln firing systems, enhancing participants' technical confidence
- Utilize machine design knowledge to match equipment functionality with specific artist needs
- Collaborate with a diverse team of specialists to deliver a cohesive & positive client experience

Technical Skills

Languages: Python, JavaScript, HTML, CSS, SQL, Assembly

Libraries/Frameworks: React, Node, Express, Chakra UI, Pygame

Tools/Platforms: Git, GitHub, Figma

Databases: MongoDB, MariaDB, MySQL

Projects

Chess GUI | *Python, Pygame* [github.com/SandKat214/Chess]

- Applied object-oriented programming principles to develop a robust & scalable system
- Developed a system to convert coordinates into grid positions for precise board rendering
- Implemented mouse click tracking to capture user input for movement and pawn promotion functionality
- Designed & integrated a pop-up messaging system to deliver immediate feedback on moves & game outcomes

Planetary Liberators | [github.com/SandKat214/PlanetaryLiberatorsDatabaseApp]

JavaScript, SQL, React, Express, Node, MariaDB, Chakra UI

- Collaborated with a team to design & develop a recruitment app for Helldivers2, applying normalization principles to ensure efficient data storage & retrieval
- Implemented Chakra UI for frontend styling, utilizing React to create a fast & responsive user interface
- Managed backend storage with MariaDB, handling user data, team management, & relationship features
- Integrated frontend with backend API using Express & SQL commands to ensure seamless data access