Sarah "Saran" Lendzian

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Summary

2 years of experience as an Undergraduate Researcher designing and developing an educational video game using Unity and C#.

Education

Bachelors of Science in Computer Science & Engineering — December 2024

The Ohio State University, Columbus, OH

Specializing in Computer Graphics and Game Design, Entertainment Design and Technology Minor — **Magna Cum Laude, 3.85 GPA**

Skills

C#, C++, C, Java, Python, JavaScript, WebGL/GLSL, x86-64 Assembly, SQL, SSMS, Unity, Unreal, Visual Studio, Eclipse, Debugging, JUnit Testing, Multi-Threaded Programming, Agile Development, Microsoft Office, Git, GitHub, SolidWorks, MATLAB, HTML/CSS, XML, React (beginner), LaTeX, WordPress, Windows, Linux, Adobe, DaVinci Resolve, Audacity, Soldering, Achieved a score of 1590 on SAT

Experience

Video Games for STEM Education Research https://u.osu.edu/fractiongame/ — March 2023 to Current

- Designing a video game to teach High School Algebra through storytelling and game mechanics.
- Working in a team to develop a smaller-scale prototype using C# to teach different representations of fractions in Unity.

Projects

Capstone Project "Angel Insolvent" — Fall 2024 to Current

Scrum master for team of seven software developers (including me) involving scheduling, distributing work, suggesting goals, running sprint planning and retrospective meetings, and adapting plans to fit the group's needs and challenges, alongside my software tasks:

- Developing C# code (Unity) for requirements of the video game, including character interactions and an inventory system.
- Using GitHub Repository for version control, reviewing pull requests; collaborating with team members to integrate systems.

"Burnout Bot" Robotics Art https://github.com/smlendzian/BurnoutBot — Fall 2022

Collaborated with a partner to create a game-like interactive wall installation/wire sculpture illustrating the concept of burnout.

- Wrote all the code (C++) and worked with the partner to design, plan, and construct/solder the artwork.
- Utilized an ESP32 microcontroller, a peristaltic pump using a DC motor to pump oil, a 16 by 16 RGB LED Pixel Display to show an animated face, an AC to DC power supply, LCD Screen, MP3/Speaker, Limit Switch, etc.

Engineering Honors Escape Room Design Project — Spring 2021

Worked in a group of four to develop a story, design, and prototype for an accessible, educational escape room. My contributions:

- Wired together over 60 individual electronic components (Arduino UNO, Multiplexers, Shift Registers, Buttons, LEDs, LCD Screen, MP3/Speaker, Servos, etc.).
- Wrote over 2500 lines of object-oriented C++ code (including comments).
    - Built a state machine that cycled through each of the puzzles and stages of the storyline.
    - Developed non-blocking code so interacting with a system component did not cause the rest of the system to fail.

Miscellaneous

- Developing a third-person action game in Unreal Engine (C++). (Current coursework)
- Contributed C# knowledge to help modify a database using Entity Framework. (May 2025)
- Rendered a simple interactive 3D scene using JavaScript and WebGL/GLSL. (Fall 2024)
- Wrote Python (NumPy) for AI character recognition of a number in a drawing. (Fall 2024)
- Worked on a team designing a dentist's office database. Created queries in SQL. (Spring 2024)
- Collaborated to build a compiler and interpreter in Java for simple languages. (Spring 2023 and Spring 2024)

Buckeyes for Accessibility (B4A) Officer — Fall 2021 to Fall 2024

Improved website using WordPress to meet accessibility standards and helped university leaders serve students with disabilities.

Courses

FEH Honors Engineering & Physics, Data Structures & Algorithms, Systems I & II (C/Assembly, Operating Systems), Computer Game & Animation Techniques, Analog & Digital Electronics, Networking, Linear Algebra, Multivariable Calculus, Engineering for Entertainment, Intro to Assistive Technology, Art New Media Robotics, Intro to Databases, Intro to AI, Real-Time Rendering