

# Susan Brethauer

Brick, NJ

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## Education

### **University at Buffalo**

*Bachelor of Computer Science*

Buffalo, NY

May 2023

## Skills

- **Programming Languages:** Python, JavaScript, Java, Scala, HTML/CSS, SQL, C, C#
- Proficiency in Microsoft Word, Excel, and PowerPoint, React.js, and Flask

## Projects

### **University at Buffalo - 3D Video Game Development**

Buffalo, NY

*Casual 3D Video Game Made in Unreal Engine 5*

Fall 2022

- Using Unreal Engine 5 I worked with a team to create a cozy, casual game
- Created all of the core game mechanics using the blueprint features in Unreal Engine 5
- Combined all of the groups work into one working project in a timely manner to meet the project deadlines

### **University at Buffalo - Software Development**

Buffalo, NY

*Social Media for Making and Sharing Memes*

Spring 2022

- Built a web app that allowed users to create, download, and post memes using a selection of preselected meme templates
- Created the meme generator using a combination of java script to generate the live updating preview and Pillow in python to generate the full resolution images that could be downloaded and shared
- Built web server using Flask in python, used mysql to store user and image data, and created the front end using CSS and HTML5
- Managed the scrum board to ensure that all of the formatting requirements were met by the team

### **University at Buffalo - STEM Communications**

Buffalo, NY

*Design for a Water Storage, Transportation, and Purification*

Fall 2021

- Collaboratively created a design for a water barrel that could be used to store, transport and purify water for use in Tanzania
- Created a Gantt chart to map the time needed to design, prototype, and release our design for use
- Wrote a technical summary of the project mapping out what would be the specific roles should the project continue

## Experience

### **University at Buffalo - School of Engineering and Applied Sciences**

Buffalo, NY

*Teaching Assistant*

August 2020 - December 2022

- Lead and managed recitations for 3 computer science classes at the university
- Explained high concept computer science ideas to first year students
- Graded 100+ assignments per week

### **Black Rocket Productions**

Middletown, NJ

*Lead Instructor*

June 2022 - August 2022

- Instructed students ages 8-15 in Python, JavaScript, HTML, and CSS in various types of projects to promote critical thinking
- Assisted students in helping them better understand their code and error codes by helping them fix bugs that arose
- Communicated the principles of programming to non computer literate personnel

### **The Learning Spot**

Brick, NJ

*Founder/Owner*

June 2021 - Present

- Founded The Learning Spot to educate students aged 8-12 in computer programming in Python, Java, and C#
- Designed an interactive webpage using HTML/CSS and JavaScript to allow users to easily find information about available classes
- Created a login system using a SQL database to store user data information
- Managed registration, financial transactions, and the schedule