

SHAMBHAVI GOYAL

Buffalo, NY 14260, USA | (716) 580-0656 | sgoyal3@buffalo.edu | www.linkedin.com/in/shambhavigoyal

EDUCATION

- University at Buffalo, The State University of New York** (Anticipated May 2027)
Computer Science (BS), Honors College
Activities: Member of the Leadership House and Women in Science and Engineering

PROJECTS:

Responsive Personal Portfolio Website (HTML, CSS, JavaScript) (December 2024)

- Developed a responsive personal portfolio website by designing a clean, modern interface focusing on user experience and mobile compatibility.
- Implemented dynamic features such as smooth scrolling, modal pop-ups, and form validation to enhance user interaction.
- Optimized website performance with CSS Flexbox and Grid for a fluid layout across devices, improving page load times.

Conway's Game of Life with Hardware Logic Circuit (C++, Arduino, NPN Transistors) (November 2024)

- Developed a hybrid software-hardware system for Conway's Game of Life, integrating an Arduino microcontroller with custom-built logic circuits (AND, OR, NOT gates using NPN transistors) to simulate cellular automata.
- Programmed the microcontroller to calculate cell states based on neighboring cells and control LED displays to visualize the simulation in real time.
- Overcame challenges in circuit design, voltage regulation, and hardware-software synchronization, gaining hands-on experience in embedded systems and digital logic.

Bank Application (Java) (June 2024)

- Developed a banking application to simulate essential banking operations, including account management and transactions.
- Created functionalities and implemented transaction capabilities for depositing, withdrawing & viewing transaction history.
- Designed a user-friendly menu-driven interface for seamless navigation and operation.

Personality Check Website (JavaScript, HTML, CSS) (November 2023)

- Developed a dynamic personality check website as part of a collaborative effort during a hackathon. The website serves as a platform for users to engage in an interactive personality quiz, providing tailored results based on their responses.
- Implemented a questionnaire quiz with interactive multiple-choice answers.

WORK EXPERIENCE

Math Place Tutor- Thomas J. Edwards Undergraduate Learning Center (May 2024-Present)

- Provided support and tutoring to students in Precalculus, Calculus 1 & 2, Algebra, and Business Math courses.
- Helped students understand math concepts, fostering strong fundamentals and promoting independent learning.

Undergraduate Teaching Assistant: CSE 199 (May 2024- Present)

- Conducted weekly recitations covering modules of misinformation, digital data representation, data mining, computing ethics, internet infrastructure, and privacy.
- Assisted in grading assignments to uphold academic standards and provide constructive feedback.

Resident Advisor- Campus Living (August 2024- Present)

- Guided and supported 30 Honors College students with tailored academic, personal, and career advice, contributing to their overall success.
- Proactively addressed resident concerns to ensure a safe and effective learning environment. Partnered with fellow RAs and campus living staff to create and implement community-building events, activities, and educational programs, enhancing the sense of belonging within the UB community.

University at Buffalo Orientation Office - Orientation Operations Assistant (April 2024-August 2024)

- Utilized orientation databases and systems to update attendance records, coordinate UBLinked events, and support behind-the-scenes logistics.
- Managed logistics for orientation programs, overseeing setup, teardown, and maintenance of event spaces, and equipment, while also coordinating inventory, deliveries, and organized storage of program supplies.

SKILLS & TOOLS

- Programming Languages: C, Python, Java, HTML, CSS, MySQL, JavaScript
- Tools: IDE, Visual Studio Code, IntelliJ, Github, Emacs