Sabrina Johnson

+1 516-506-1852 | saj24@buffalo.edu | linkedin.com/in/sabjohnson | github.com/sabjohnson

Education

University at Buffalo, State University of New York *Buffalo, New York* *Expected May 2025*
Bachelor of Science, Computer Science

- GPA: 3.7
- Relevant Coursework: Distributed Systems, Introduction to Parallel and Distributed Processing, Computer Security, Project Management, Web Development, Introduction to AI, Software Quality in Practice
- Awards: Donna M. Taylor Computer Science Engineering Undergraduate Scholarship, Dean's List

Technical Skills

Languages: C, C++, Golang, Python, PHP, Java, HTML, CSS, Javascript, Dart, MIPS Assembly
Frameworks: MySQL, MongoDB, Flask, React.js, Docker
Tools: Unix/Linux, Git, GNU Debugger, HPC at University at Buffalo, SLURM, OpenMP, MPI

Computer Science Experience

Institute for Artificial Intelligence and Data Science *June. 2024 - Aug. 2024*
Artificial Intelligence Research Intern
Project: Unfold Studio | Python

- Enhanced an RPG-style editor with generative AI capabilities for 15,000 users.
- Utilized OpenAI API to integrate ChatGPT in a program tailored for students learning Inkle.
- Presented the project's mockup to the New York Chancellor, showcasing the integration of AI in educational tools.

Human-In-The-Loop Systems Lab *May. 2024 - Aug. 2024*
Research Intern
Project: Classifier Development for Patient Engagement in Robotic Rehabilitation | Matlab

- Conducted comprehensive literature review and sourced documentation for MyoBand, a wearable sensor utilized in robotic rehabilitation research.
- Developed a binary classifier using EMG and IMU data in MATLAB.
- Presented project findings at a Research Symposium, demonstrating the classifier's impact on improving robotic rehabilitation systems.

University at Buffalo, Department of Computer Science and Engineering *Aug. 2023 - Current*
Lead TA (Systems Programming) & TA (Algorithms and Complexity/Distributed Systems)

- Lead weekly labs on Systems Programming concepts and software, and review algorithm design paradigms and time complexity analysis for classes of 30 students.
- Aid over 400 students in C programming and over 300 students in Java and Python, hosting office hours five times a week across both courses.
- Manage task coordination for a 30-member TA team, overseeing grading, exams, project releases, and hiring to ensure efficiency and meet deadlines.

Projects

Distributed Hash Table: *Golang*

- Implemented binary tree to optimize distributed communication and routing in a hash table system.
- Deployed TCP-based messaging for efficient inter-node communication, boosting system scalability.
- Designed a concurrency model with goroutines for reliable event management.

Recipe Sharing Social Website: *PHP, SQL, HTML, CSS, Javascript*

- Developed a dynamic website incorporating advanced user authentication and session management.
- Engineered sorting algorithms for recipes based on various criteria including date, engagement ratios, and available ingredients from a user's virtual fridge, enhancing the app's usability and user experience.
- Collaborated within a cross-functional team to develop backend functionalities for a recipe sharing social app

Activities/Engagement

Collegiate Science and Technology Entry Program (CSTEP), National Society of Black Engineers (NSBE), University at Buffalo (UB) Hacking