

Amsha Gaffar

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EDUCATION

University of Houston-Houston, Texas

May 2025

Double Major:

Computer Science & Psychology

B.S. in Computer Science

- GPA: 3.7
- Relevant Coursework: Data Structures, Algorithms, Discrete Math, Operating Systems, Industrial-Organizational Psych, Social Psych, & Linear Algebra

WORK EXPERIENCE/ LEADERSHIP EXPERIENCE

Sipchem International

Dallas, TX

Software Development Intern

May 2024-August 2024

- Engineered and optimized C++ software modules, resulting in a 15% increase in efficiency for chemical production monitoring systems
- Implemented Python-based data analysis automation, reducing system downtime by 15% through predictive maintenance strategies
- Enhanced software reliability by implementing continuous integration and deployment (CI/CD) practices with Docker and Jenkins
- Collaborated with cross-functional teams to ensure software solutions met industry standards and supported critical operational processes

Mathnasium

Houston, TX

Lead Instructor/Assistant Director

July 2021-January 2023

- Spearheaded a team of 5 instructors, achieving a 95% student satisfaction rating through exceptional instruction and tutoring services
- Developed and implemented data-driven personalized learning plans for 80 students, resulting in a 15% average improvement in test scores
- Managed center operations, including scheduling, enrollment, and instructor oversight, ensuring efficient student-instructor ratios for optimal learning

PROJECTS

Pokemon 1v1 Battle Game | C++

- Developed a Pokemon 1v1 battle game using C++ to determine proficiency in object-oriented programming and game development
- Crafted a flexible class hierarchy to represent 3 different Pokemon starter species, each with unique battle moves and characteristics

Personal Website | HTML, CSS, JS

- Designed and developed a personal website leveraging **HTML**, **CSS**, and **JavaScript** to create an interactive platform showcasing a diverse array of projects
- Provides in-depth project documentation, code samples, and a user-friendly interface for seamless navigation

Rate Monotonic Scheduling Algorithm | C++, Git

- Developed a scheduling algorithm in C++ using threads and sockets for multithreading and synchronization
- Achieved synchronization between main and child threads, ensuring accurate and consistent task set utilization, hyperperiod, and rate monotonic scheduling algorithms

SKILLS & TECHNOLOGIES

Programming Languages: Python, C++, Java

Web Technologies: HTML and CSS

Tools: Git, VS Code, Canva, Google Suite, AWS, Azure

Database: MySQL