

Amsha Gaffar

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EDUCATION

University of Houston-Houston, Texas

May 2025

Double Major:

Computer Science & Psychology

B.S. in Computer Science

- Relevant Coursework (CS): Data Structures, Algorithms, Discrete Math, Software Design, & Operating Systems
- Relevant Coursework (Psych): Industrial-Organizational Psych, Social Psych, & Linear Algebra

WORK 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
- Optimized MySQL databases for faster query performance, reducing response time for production systems by 10%.
- 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

Volunteer Matching Web App | *Node.js, MongoDB, HTML, CSS*

- Created Volunteer History and Matching modules, enabling users to track participation and get matched with relevant events
- Designed and implemented MongoDB schemas to store and manage user and event data
- Developed responsive frontend interfaces using HTML and CSS to display event listings and user history
- Collaborated across the stack to integrate backend functionality with user-friendly frontend design

Personal Website | *HTML, CSS, JS, React*

- Designed and developed a personal website leveraging **HTML, CSS, JavaScript, & React** 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, TypeScript, Kotlin

Web Technologies: HTML, CSS, JavaScript, React, NextJS, React Native, Node.js

Tools: Git, VS Code, Canva, Google Suite, GraphQL, Docker, Jenkins, CI/CD

Database: MySQL, NoSQL