

# Hatem Saleh

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## EDUCATION

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### University of Houston

August 2021 – Dec 2023

Bachelor in Computer Science, Minor in Mathematics (GPA: 3.60/4.00)

Houston, TX

**Honors:** University of Houston Transfer Excellence Scholarship 2022 and 2023

**Relevant Courses:** Data Structures, Computer Organization & Architecture, Operating Systems, Digital Image Processing, Fundamentals of Medical Imaging, Data Science and Stats Learning, Artificial Intelligence, Algorithms and Data Structures, Intro to Comp Networks, Database Systems, Software Engineering

## SKILLS

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### Technical:

C++, Python, C#, SQL, PostgreSQL, HTML, CSS, Java Script, Algorithms, Coding, Debugging, GitHub, Git, Object Oriented Programming(OOP), Linux, Azure

**Languages:** Bilingual in English and Arabic

## EXPERIENCE / PROJECTS

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**2048 Puzzle Solver**, Data Structure(<https://github.com/HatemSaleh/2048-buzzle-solver/tree/main>) **spring 2022**

- Built a grid for the game 2048 where the elements in it could slide left, up, right, and down
- Implemented Depth-First search to develop an algorithm that finds the shortest solution for the game 2048

**CT Scan Simulation**, Medical Imaging

**fall 2022**

- Produced a functional CT scan simulation using Python, simulating image slicing in horizontal, vertical, and diagonal orientations, coupled with comprehensive image reconstruction on a generated "virtual phantom".
- Proactively collaborated as part of a 4-member team of undergraduates at the University of Houston, spearheading the implementation and refinement of the system.

**Multiprocessing and Multithreading**, Operating Systems

**fall 2022**

- Utilized threads and processes to perform multiple computations concurrently
- Applied Semaphores to control the order in which the threads are displayed

**Library Database Website**, Database Systems

**spring 2023**

- designed a relational database schema for the library
- Collaborated with 4 of team members to build the database using PostgreSQL, and to develop the backend and the frontend using .NET, C#, HTML, CSS, and Java Script
- Presented the functionality of the website with the team members

**Personal Website**, Personal Project (<https://github.com/HatemSaleh/personal-portfolio>)

**fall 2023**

- Built a personal website using HTML, CSS, and Java Script
- Created a responsive code that adjusts to different screens