AIMAN PRASLA

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EDUCATION

University of Houston – Houston, Texas
Bachelor of Science in Computer Science **Spring 2026**

- Minor: Mathematics
- GPA: 3.82

Relevant Coursework: Introduction to Programming (C++, Python), Data Structures and Algorithms (C++), Computer Organization and Architecture (C++, Assembly), Fundamentals of Operating Systems (C++, C)

PROJECTS

***Message-EZ* – HTML, CSS, JavaScript, React, NodeJS**

- Capable of **private messages and group messages**, with additional support of **file type messages** including but not limited to **pdfs, images, videos, etc**.
- Initiates conversations by **allowing users to find other users that are currently active** on the application.
- Designed with a simplistic tone created to **mimic the tone of iMessages and WhatsApp**.
- Executes **authentication through a login page**, guaranteeing users are properly managed and **conversations are kept private**.

***Memory Management Simulator* – C++**

- Applied various **memory management techniques** such **as LRU, MRU, LFU, OPT, LIFO**, etc.
- Algorithms **simulate page storage, faults and replacement** with input integers and determine replacement and faults **based on arbitrary values for number of processes, cache size, table size**, etc.
- Memory management techniques are fulfilled by the **implementation of semaphores** which determine execution order and **concurrent processing capabilities** which allow for **faster run times**.

***Maze Generator* – C++**

- Program that uses **Prim's Algorithm to generate mazes** of arbitrary sizes and displays them.
- **Breadth First Search** is used to simulate exits and to **find the fastest path of exit**, which is displayed with percentage of the blocks needed for exit over the total of blocks.

***Tamagotchi Game* – C++**

- Game that allows users to **create pets that they can train, feed, level up**, etc.
- Uses **classes and inheritance** to generate pets that the user can choose to use and save or delete.

***Sparse Matrix* – C++**

- Created to **imitate the standard matrix data structure** but allows users to have more control.
- Produced **two matrices using pointers** that can be used to do standard arithmetic between matrices.
- Applied **polymorphism** to allow **traversal of the matrix** to get necessary information on stored values as well as to help with the arithmetic if needed.

ADDITIONAL

- Honors: Distinguished Dean's List (Fall 2022 – Current)
- Language Fluency: English, Gujarati, Hindi, Urdu, Marathi, Spanish
- Technical Skills: Java, C++, C, Python, HTML, CSS, JavaScript, React, NodeJS, Git, SQL, Linux