Jingshi Liu

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Queens, NY

EDUCATION

CUNY Queens College   Flushing, NY

Bachelor of Science in Computer Science   *2019.9 - 2023.5(expected)*

- *Courses Taken: OOP in Java and C++, Computer Architecture, Assembly language, Discrete Structure, & Data Structure*

SKILL SET

- Programming Language: C++, Java, Python, HTML, CSS, JavaScript

- Data Structure: BST, AVL Tree, Heaps, Lists, Stack, Queues, Hash Table

- Algorithms: Dijkstra, Prim, Kruskal, Huffman Coding

PROJECT EXPERIENCE

Vanilla Javascript Shopping Cart

- A web app implemented by HTML, CSS, Javascript, and DOM. Including 2 webpages: shopping page and shopping cart page. Within the navbar of each webpage, "Cloth Store" on the left lead to shopping page and cart icon on the right with a number telling the total quantity of items in the cart lead to the shopping cart page

- In shopping page, it displays many items. Each item has it own box which shows a picture and details of the item. User can choose to add or remove from the cart by clicking "-" or "+" button.

- Shopping cart information tracked by a list and it is saved to the local storage for the communication between 2 pages.

- In shopping cart page, displaying "cart is empty" and a button "return to shopping page", or selected items and buttons to purchase or remove items.

- Shopping cart items also displayed in its own box, showing the price, a photo, "-" and "+" buttons, and "x" button on the top right of each box to remove the current item.

Flash Card App in Python

- GUI was implemented by using tkinter module. Including the main section or a flash card has welcome phrase written and two buttons: correct and wrong buttons. Each button's icon is replaced by a 'x' or '✔' image.

- Clicking correct button starts the app. Flash card shows a French word and the background color of flash card changed to simulate flipping the card. After 2 seconds, flash card is flipped again and user can press correct or wrong button.

- Both button flip the card again and move to next word, but correct adds the vocabulary to "remembered" list and app won't show that word again

- Vocabulary lists stored in a csv file and the program reads and update whenever needed.

Huffman Coding Text Compression in C++

- Given a file of characters and the probability of each character.

- An "ifstream" object from "ftream" will open the file and a sorted linked-list will be constructed that each node holds the information of character and the probability in ascending order.

- A Huffman tree will be constructed from the linked-list that the lower depth leave holds the characters that have a higher probability

- Finally, a probability table would be constructed from the Huffman tree and it will be saved into an output file by using a "ofstream" object.