Dev Chaudhari

Email | GitHub | Website | LinkedIn

EDUCATION

University of Western Ontario
Major: Software Engineering
Honors/Awards: Western Scholarship of Distinction, Dean of Engineering's International Entrance Scholarship ($5000)
Relevant Coursework: Programming Fundamentals for Engineers, Scripting Programming Language, Algorithms & Data Structure, Software Design and Construction, Digital Logics Systems

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EXPERIENCE

Movie Playback Button | *Software Developer*   January 2023 – April 2023
- Collaborated with a team of six to develop a solution for individuals with cerebral palsy to control household smart devices from their wheelchair with minimal hand movement
- Designed a system comprising a joystick and two buttons connected to a programmed Arduino, functioning as a navigation tool for the user's DVD, smart TV, or other monitor devices
- Utilized Python for Arduino programming, creating code enabling the Arduino to interface with smart appliances
- Implemented joystick controls for functions such as pause, play, rewind, forward, and returning to the home screen

Substitution | *Software Developer*   July 2023 - September 2023
- Developed a prototype using C to encrypt a plaintext or to decrypt a ciphertext
- Implemented a key, mapping each alphabet letter to its corresponding encrypted letter, ensuring data security
- The total number of possible key combinations without repeating any alphabet is 4,032,914,611,266,049,317,120,000 (4 sextillion)
- To decrypt the message, the receiver must possess the key to reverse the process and translate the ciphertext to plain text. Without the key, it would take approximately 1.28×10^{17} years to try all the combinations and decrypt the message

Mastermind | *Software Developer*   August 2023 – Present
- Developing a real-life game called Mastermind in C
- Designed for 2 players: codemaker, who sets the pattern, and codebreaker, who cracks the pattern
- Implemented validations for codemaker's input, ensuring it is a 5 to 8 letter word through command-line arguments
- Provided codebreaker with 6 guesses to crack the pattern; the game ends when pattern is cracked or after 6 attempts
- Implemented feedback system using colors:
  - Red indicates the letter is not in the secret word
  - Yellow indicates the letter is in the secret word but in the wrong position
  - Green indicates the letter is in the secret word and in the correct position

Credit | *Software Developer*   June 2023 - July 2023
- Implemented Luhn's Algorithm in Python to validate create card numbers, ensuring accuracy and security
- Developed mechanism to determine whether a card number entered is valid or invalid
- Enhanced the program to identify if the Card is Visa, Mastercard or American Express

Grade Book | *Software Developer*   March 2023 - April 2023
- Utilized Java to create a Grade Book application
- Developed a system to capture and store vital student information including names, unique IDs including detailed records of their academic performance, quizzes, tests and exam scores
- Implemented a feature to include instructor details for specific courses, enhancing the system's usability by providing complete context for students' performance analysis

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SKILLS & INTERESTS

Programming: Python, JavaScript (React),HTML,CSS Java, C/C++, TypeScript, SQL, Linux/Bash, Cloud Platforms (GCP, AWS, Azure), GIT(version control)
Interests: Long distance cycling, chess, table tennis, sports and athletics, conservation, tech innovation, Hiking, writing
Organizations and Conferences: Software developer at Western Algorithm Trading Club