Chaitanya Mittal

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Burnaby, BC, Canada 🏠

Skills

- **Programming:** Python, C/C++
- **OS:** Windows, Linux
- **Software:** MS Office, PyCharm, Visual Studio
- **Language:** English, Hindi
- **Team:** Leadership, Communication

- Problem-solving
- Creativity and Critical Thinking
- Teamwork and Groupwork
- Managing groups and audiences
- Responsible work to the best capacity

Technical Project Experience

Coin Sorter   *2024*

- Developed a C program to simulate a Coin Sorter, adhering to coding standards. Implemented file handling, input validation, dynamic memory allocation, and structure usage.
- Utilized problem-solving skills to configure the coin sorter based on any provided coin data, ensuring accuracy and reliability in sorting various coin types.
- Implemented error handling mechanisms to gracefully handle file opening failures, invalid input data, and main logic errors to ensure program robustness and reliability.
- Conducted extensive testing and debugging to validate the program's functionality, ensuring accurate sorting and proper simulation results for numerous test cases.

Robots Game Variant   *2024*

- Used problem-solving skills to draft and implement a game based on the game of life using dynamic arrays, structures, file handling, and functions in C.
- Used critical thinking to hold and store robots, their location, colour and direction, and randomly generate a sequence based on user input that decides movement and starting points.
- Implemented robust input validation and error handling mechanisms to enhance user experience and ensure the program doesn't crash midway.
- Conducted thorough testing and iterative refinement to deal with various scenarios, ensuring a stable and smooth experience catering to all possible cases.

Linked List and Stack Implementation   *2024*

- Implemented two C++ classes: LinkedList and Stack, utilizing a linked list for stack implementation and developed LinkedList.cpp and Stack.cpp to contain class implementations as per provided class definitions.
- Ensured proper utilization of linked list functions to simplify Stack class implementation.
- Performed comprehensive testing using provided Driver.cpp file and additional test cases to validate functionality and adherence to requirements.

Mario Game Engine Development   *2023*

- Developed the game engine for the Mario game, enabling Mario to navigate the maze based on user input and updating his score accordingly.
- Translated the algorithm for the game engine into Python code, ensuring each step was accurately implemented to maintain game functionality.
- Utilized incremental development and testing with print statements to ensure the game engine operated as expected, debugging any issues encountered during development.

Personal Projects

Excel Processor Program
2024

- Developed an Excel processor program in Python to efficiently handle various types of data inputs and generate corresponding CSV files, enhancing data management capabilities.
- Implemented a user-friendly interface allowing users to specify the type of data to process and seamlessly input data from external files, streamlining the data processing workflow.
- Conducted rigorous testing and validation to ensure accurate conversion of input data into CSV format, ensuring reliability and precision in the output files generated by the program.

Criss Cross Game Program
2023

- Created a Criss Cross game program in Python with multiple modes (player vs player, player vs bot, bot vs bot), integrating a dynamic betting system for users to wager on outcomes.
- Developed robust game logic and interfaces, utilizing Python's data structures to manage game state efficiently.
- Demonstrated software development skills by iteratively enhancing functionality and thorough testing to ensure smooth gameplay and accurate betting calculations.

Non-Technical Experience

SFU Student Fundraiser
Jan 2024 - Present

- Developed strong communication and interpersonal skills through fundraising efforts with SFU alumni.
- Collaborated effectively within a team to strategize and execute fundraising campaigns, showcasing teamwork and coordination abilities.
- Demonstrated adaptability by utilizing various communication channels to engage with alumni, enhancing versatility and flexibility in communication.
- Showed dedication and initiative in community building and alumni relations.

Volunteerism and Community Involvment

Calculus Connect Mentor
Jan 2024 - Present

- Provided personalized guidance and mentorship to SFU students enrolled in MATH 150, fostering comprehension and problem-solving skills.
- Offered ongoing feedback and support tailored to individual needs, contributing to students' academic growth and success in mathematics.
- Demonstrated commitment to fostering interest and enthusiasm for mathematics among students through active engagement and mentorship.

Community Program Coordination
Aug 2023

- Organized and facilitated a community feast event, demonstrating strong organizational skills and attention to detail in managing logistics.
- Successfully coordinated with volunteers to ensure smooth execution of the event, fostering community bonds and a sense of celebration.
- Demonstrated leadership and teamwork by effectively delegating tasks and managing resources to achieve the common goal of strengthening community connections.

Education

Simon Fraser University, Burnaby
2023 - 2027 (expected)

- Bachelor of Science, Computing Science.
- GPA: 4.250

Puzzles, Detective Novels, Basketball, Esports, AI, ML, Math, Computer, Volunteering, Mentorship