Prashasti Priya

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Education

- **VIT Bhopal University**
  B.Tech. in Computer Science and Engineering — CGPA: 9.16 May 2026

Skills

- Programming Languages & Technologies: C, C++, STL, Memory Management, File Handling, Multithreading, Socket Programming.

Projects

- **Banking Management System** *Jan 2025 – Feb 2025*
  Tech Skills: C++, OOP, STL, File Handling
  – Built a console based banking management system using C++ OOPS principles enabling account creation deposits withdrawals balance inquiry with secure PIN validation and robust input error handling features.
  – Implemented persistent data storage using fstream enabling full CRUD operations with consistent data retention across sessions and structured file based record management logic with error handling support.
  – Applied object oriented design with classes inheritance and encapsulation to enhance code reusability maintainability and scalability while adhering to clean coding standards.
- **File Compression Tool (Huffman Encoding)** *Feb 2025 – March 2025*
  Tech Skills: C++, STL, Data Structures, File Handling
  – Developed a lossless file compression tool in C++ implementing Huffman Encoding to reduce file size efficiently using frequency analysis and optimal prefix codes with robust error handling logic.
  – Used STL containers unordered map, priority queue and vector to construct Huffman trees generate binary codes and perform encoding decoding operations with optimized memory usage and time complexity control.
  – Implemented bit level file handling and modular design to support compression decompression error handling and improve storage efficiency across multiple files ensuring reliable performance scalability.
- **Multithreaded Chat Application** *March 2025 – April 2025*
  Tech Skills: C++, Multithreading, Sockets, TCP/IP
  – Developed a real time client server chat application in C++ using TCP sockets enabling bidirectional communication with support for multiple concurrent users through threading.
  – Implemented multithreading using stdthread mutex and synchronization mechanisms to handle simultaneous message sending and receiving while preventing race conditions and deadlocks.
  – Designed a modular and scalable architecture with proper error handling connection management and clean shutdown logic demonstrating system level programming and concurrency concepts.

Achievements

- Winner – Lakecity Hack-2024 (No Code Hackathon, JLU Bhopal): Proposed smart glasses leveraging Computer Vision & NLP to convert hand signals into speech and spoken words into subtitles, enhancing accessibility.
- Flipkart Grid 7.O: Reached the semi-finals among 1.6L+ participants, showcasing problem-solving skills.

Activities

- Volunteered at the International English Conference (Nov 2023), as part of the event management team, coordinating with professors from 10+ states and 5+ countries to ensure smooth execution for 200+ attendees.
- Solved approximately 400 questions in Leetcode covering two pointers, sliding window, linked list, stacks, queue, Binary tree, Hash table, shortest paths, Bit Manipulation, BFS, DFS, Dynamic Programming.

Hobbies

- Mandala art, table tennis, basketball, and cooking.