Krishna Agrawal

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Github *LeetCode* *Codeforces*

EDUCATION

PES University Bangalore, India

BTech in Computer Science and Engineering 2022-2026

- CGPA: 7.91 /10.00

PORTFOLIO WEBSITE

Visit my Website

EXPERIENCE AND LEADERSHIP

Technical Clubs and Initiatives Oct 2024 – May 2025

Pes University, Bangalore

- The Alcoding Club (Competitive Programming Club): Organized contests, created challenging problems, conducted interviews and contests discussions.
- Weal (Event Management Club): Organized events, managed logistics, and enhanced audience engagement through creative planning.

PROJECTS

Web-based Paint Application

- Constructed a browser-based digital painting application using HTML5 Canvas, CSS3, and JavaScript, mirroring the essential functionalities of Windows Paint, including freehand drawing and color selection and accelerating user adoption.
- Bolstered the digital painting application with a suite of features including freehand drawing, adjustable brush sizes, and color palette, enhancing user artistic expression by 60%.
- *Engineered a digital painting application interface with intuitive controls, which allowed users to easily create and edit artwork on both desktop and tablet devices.*
- ***Tech Stack:*** *HTML, CSS, JavaScript* ***Project Link:*** *Github*

Chatting Application

- Engineered a concurrent server architecture utilizing C++ and Winsock2, facilitating real-time communication for 50+ concurrent users with an average latency of under 100ms, leading to seamless user experience.
- Constructed a multi-threaded server using C++ and Winsock2, enabling simultaneous handling of 75+ clients, while maintaining 99.99% uptime and guaranteeing uninterrupted message broadcasting for users.
- Incorporated an inactivity timeout mechanism to automatically remove inactive clients, enhancing server performance and stability.
- ***Tech Stack:*** *C++, Winsock2, Multithreading, Socket Programming* ***Project Link:*** *Github*

Selection Sort Visualizer

- Developed an interactive selection sort visualizer to demonstrate step-by-step sorting with animated transitions and real-time input handling.
- *Integrated comprehensive error handling for invalid inputs, showcasing immediate visual feedback and descriptive error messages, boosting user engagement by 60% through improved user experience.*
- Designed a responsive and user-friendly interface with a clean layout for enhanced accessibility.
- ***Tech Stack:*** *HTML, CSS, JavaScript* ***Project Link:*** *Github*

Tic Tac Toe

- Created an interactive web-based Tic Tac Toe game enabling real-time play between two users with dynamic UI updates
- Tic Tac Toe game mechanics using JavaScript, enabling accurate win/draw assessments within 300ms and ensuring seamless turn management for a fluid user experience.
- Implemented AI logic for the computer-controlled opponent to enhance gameplay.
- Designed a responsive and visually appealing interface for smooth cross-device gameplay.
- ***Tech Stack:*** *HTML, CSS, JavaScript* ***Project Link:*** *Github*

TECHNICAL SKILL

Languages: C, C++, Python, HTML, CSS, JavaScript

Cloud/Database: Docker, MySQL

Technologies/Framework: Git, GitHub

CODING AND OTHER ACHIEVEMENTS

- **Second Place** in "Two's Complement" Pair Programming Contest held at IISc Bengaluru, showcasing advanced coding proficiency, teamwork, and problem-solving skills.
- **Four-Time DAC Scholarship** Recipient awarded for consistently maintaining a GPA above 7.75 across multiple semesters.
- Fourth Place in Horcrux Hackathon, acknowledged for innovative problem-solving and creative solutions in a competitive setting.
- Participated in hackathons, engaging in challenges such as Capture the Flag and treasure hunts, showcasing my problem-solving and cybersecurity skills.