Krishna Agrawal

krishna9078agrawal@gmail.com | +91 9078522307 | linkedin.com/in/krishnaagr/

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

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

- *Engineered an interactive selection sort visualizer using JavaScript and HTML5 canvas, enabling users to step through the algorithm transitions; improved user understanding by 40%.*
- *Integrated comprehensive error handling for invalid inputs, showcasing immediate visual feedback and descriptive error messages, boosting user engagement by 60% through improved user experience.*
- *Crafted a responsive, user-centric interface with a streamlined layout to improve accessibility.*
- ***Tech Stack:*** *HTML, CSS, JavaScript* ***Project Link:*** *Github*

Tic Tac Toe

- Engineered a two-player Tic Tac Toe game using JavaScript, incorporating minimax algorithm for unbeatable AI, while processing user inputs in under 75ms, improving user satisfaction.
- 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

- Achieved 2nd place in 'Two's Complement' Pair Programming Contest at IISc Bengaluru by demonstrating advanced algorithmic thinking, efficient code implementation, and strong collaborative development skills.
- Four-Time DAC Scholarship Recipient awarded for consistently maintaining a GPA above 7.75 across multiple semesters.
- Secured 4th place in Horcrux Hackathon for developing technically solution under strict time constraints, demonstrating creativity and practical implementation skills
- Engaged in multiple hackathons featuring challenges like Capture the Flag and technical treasure hunts, applying logical reasoning, analytical thinking, and strategic decision-making in high-pressure scenarios.