

Prasanga Aryal

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PROJECTS

AI Chatbot- <https://paryal58.github.io/chatBot/>

- Developed a dynamic AI chatbot using React providing real-time user interaction with smooth message updates.
- Integrated Google Gemini API for natural language processing (NLP) to facilitate seamless backend-frontend communication.
- Implemented secure API key management to control access to external services, ensuring data privacy through proper token handling.

Red | Black Game- <https://paryal58.github.io/deck.html>

- Built a web-based card game using HTML, CSS, and JavaScript, incorporating external APIs for dynamic deck management, such as shuffling and drawing cards.
- Designed a responsive and visually engaging UI using Semantic UI, ensuring seamless navigation across game modes, statistics, history, and cheats.
- Developed advanced probability calculation logic using Math.js, allowing players to analyze the likelihood of drawing specific cards when cheats are enabled.

Blackjack Game- <https://paryal58.github.io/Blackjack/>

- Built an interactive Blackjack game using React incorporating external APIs for card management and enforcing standard game rules.
- Implemented a real-time counter displaying the remaining face cards, aces, and player scores, enabling users to make informed strategic decisions during gameplay.
- Applied modular and reusable component architecture to improve code maintainability and scalability for future enhancements.

Multithreaded Chat Program - https://github.com/paryal58/chat_program

- Developed a multithreaded chat application in Python, enabling communication between two clients on the same device across different ports.
- Utilized TCP/IP sockets to establish reliable communication channels between clients, ensuring smooth data transfer in a local environment.
- Implemented multithreading to handle simultaneous message exchanges between the clients, enabling real-time communication without delays.

WORK EXPERIENCE

MathExcel Undergraduate Teaching Assistant – University of Kentucky January 2024 – April 2024

- Collaborated with instructors to organize an engaging and effective learning environment.
- Provided individualized support, helping students grasp complex mathematical concepts.
- Facilitated interactive problem-solving sessions, improving student engagement and critical thinking.

EDUCATION

University of Kentucky – Lexington, Kentucky August 2023- December 2025

Bachelor of Science in Computer Science

Cumulative GPA: 3.94

- Relevant Courses: Artificial Intelligence, Computer Networking, Deep Learning, Generative AI, Web Programming, Theory of Computing, Algorithm Design and Analysis, Systems Programming, Graphics and Multimedia, Discrete Mathematics

Bluegrass Community and Technical College – Lexington, Kentucky January 2022- May 2023

Associate of Science

Cumulative GPA: 4.0

- Organizations/Honors: Phi Theta Kappa Honor Society, Science to Success Scholar, Dean's List (Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024, Fall 2024)

SKILLS

Languages: Nepali, Hindi, English

Programming Languages: C, C++, Python, Java, JavaScript, Prolog, PHP, R, MATLAB

Web Development: React, HTML, CSS, JavaScript, JQuery, JSON

Tools & Frameworks: Git, Linux, Bash, Tkinter

Soft Skills: Communication, Teamwork, Problem-Solving