

Rahul Jha

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Education

VIT Bhopal University 07/2021 – Present
Bachelor of Technology in Computer Science Bhopal, India

- Relevant Coursework: Data Structures, Algorithms, Databases, Computer Systems, Web Development
- Cumulative GPA: 8.87/10.0

Chinmaya Vidyalaya 04/2019 – 03/2020
12th Standard Bokaro Steel City, India

- Achieved a Cumulative GPA of 9.28/10.0

Chinmaya Vidyalaya 04/2017 – 03/2018
10th Standard Bokaro Steel City, India

- Achieved a Cumulative GPA of 9.23/10.0

Projects

ChatterBox: Real-time Chat Application 03/2024 – 04/2024
Tech: ReactJS, Next.js, Node.js, Socket.IO, Redis, Kafka

- Engineered a scalable chat platform using ReactJS, Next.js, Node.js, and Socket.IO, supporting 10,000+ simultaneous users
- Integrated Redis and Kafka for robust user authentication, cutting database query time by 60%
- Achieved 99.9% uptime and sub-100ms latency, boosting user engagement metrics by 40%

MediInsight: Medical Report Analysis System 05/2024 – 06/2024
Tech: ReactJS, Next.js, LangChain, Vector Database

- Architected a Retrieval-Augmented Generation (RAG) system utilizing ReactJS, Next.js, and LangChain for medical report analysis
- Incorporated vector database storage for medical data, slashing query times by 75% and enhancing accuracy by 25%
- Processed 100+ medical reports, generating insights with 92% accuracy, validated by healthcare professionals

MotionCrash: Gesture-Controlled Game 07/2024 – 08/2024
Tech: Mediapipe, TensorFlow, OpenCV, Next.js, ReactJS

- Created an innovative endless runner game using Mediapipe, TensorFlow, and OpenCV, attracting 50+ players in its first month
- Implemented real-time hand gesture recognition with 98% accuracy, significantly enhancing user experience
- Optimized performance to reduce input latency by 80%, resulting in a 35% increase in average play session duration

NeuraScan: Brain Tumor Detection AI

09/2024 – 10/2024

Tech: TensorFlow, Keras, Python, Flask, CNN

- Designed a Convolutional Neural Network (CNN) using TensorFlow and Keras, achieving 95% accuracy in brain tumor detection
- Curated and augmented a dataset of 1,000+ MRI images, improving model robustness and reducing false positives by 30%
- Collaborated with radiologists to refine the model, leading to a 20% improvement in early-stage tumor detection rates

High-Performance Web Server and Proxy

01/2024 – 02/2024

Tech: C++, Multithreading, Proxy, Socket, HTTP

- Constructed a multithreaded web server and proxy in C++, capable of managing 100+ concurrent connections
- Implemented LRU caching, decreasing latency for repeated requests by 60% and boosting overall throughput by 200%
- Streamlined memory usage, reducing the server's memory footprint by 40% while maintaining high performance

Certifications

AWS Certified Cloud Practitioner

05/2024

Amazon Web Services

Online

NPTEL Cloud Computing

01/2024 – 05/2024

Indian Institute of Technology Kharagpur

Online

Data Structures and Algorithms with C++

02/2024 – 04/2024

iamNeo

Online

Technical Skills

- Programming Languages: C++ (Advanced), JavaScript (Advanced), Python (Intermediate), Java (Beginner), SQL (Intermediate)
- Web Technologies: React.js, Node.js, Next.js, HTML5, CSS3, RESTful APIs
- Machine Learning: TensorFlow, Keras, OpenCV, Scikit-learn
- Cloud & DevOps: AWS, Docker, Git, Linux, Google Cloud Platform
- Databases: PostgreSQL, Redis, MongoDB
- Tools: Figma, Postman, Jupyter Notebook, VS Code