Rahul Kumar

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OBJECTIVE

Highly motivated Computer Science graduate with a strong foundation in software development and a passion for problem-solving. Recent graduate with a Master's degree in Computer Application(MCA). I am eager to secure an opportunity to develop skills in systems software further and contribute to innovative projects.

EDUCATION

- **Birla Institute Of Technology, Mesra** *Aug 2022 - May 2024*
  Master of Computer Application **Ranchi**
  ◦ GPA: **8.3/10**

- **Lalit Narayan Mishra Institute Of Economic Development And Social Changes** *Aug 2018 - Aug 2021*
  Bachelor Of Computer Application **Patna**
  ◦ Grade: **73.45%**

SKILLS

- **Programming Languages:** JavaScript, Python, C++
- **Web Technologies:** React.js, Node.js, Express.js, Tailwind CSS, HTML, CSS
- **Database Systems:** MongoDB, My SQL, GraphQL
- **Cloud & Tools:** AWS, Linux, Docker, Kubernetes, Git, GitHub
- **Coursework:** DSA, Analysis of Algorithms, OOPs, OS, DBMS
- **Soft Skills:** Problem-Solving, Leadership, Documentation, Communication, Teamwork

PROJECTS

- **NoteKeeper** *Sep 2024 - Oct 2024*
  *Tools: **React.js, Node.js, Express.js, MongoDB, Mongoose, JWT, Tailwind CSS, Redux*** |
  ◦ Developed a modern note management application using the **MERN Stack** that allows users to create, edit, pin, search, and organize notes securely.
  ◦ Implemented user **authentication with JWT**, enabling secure user registration and login functionalities.
  ◦ Developed **RESTful APIs** for note management, including **CRUD** operations, ensuring efficient data handling.
  ◦ Utilized **Redux for state management**, improving performance and providing a seamless user experience.
  ◦ Created a **responsive frontend** with **Tailwind CSS**, ensuring compatibility across various devices.
  ◦ Integrated MongoDB for data storage, utilizing Mongoose for schema definition and model management.
  ◦ Employed best practices in error handling and debugging to ensure a robust and user-friendly application.

- **AI Virtual Voice Assistant** *Feb 2024 - May 2024*
  *Tools:**Python, SpeechRecognition, Google Text-to-Speech (TTS), NumPy, Pytorch***
  ◦ Developed an AI-driven virtual voice assistant capable of understanding and responding to user commands through Natural Language Processing (NLP), Machine Learning, and Neural Networks.
  ◦ Integrated speech recognition, natural language understanding, and text-to-speech technologies for a seamless, interactive user experience.
  ◦ Designed the assistant to manage schedules, set reminders, search the web, generate image, control smart devices, and provide personalized responses based on user preferences

- **N-Queens Solver** *Dec 2023*
  *Tools:**HTML, CSS, JavaScript*** |
  ◦ Developed an algorithmic solution to solve the N-Queen problem, **implementing a backtracking approach** to place N queens on an NxN chessboard such that no two queens threaten each other.
  ◦ Implemented a visual board using JavaScript with an efficient search mechanism to display all possible valid solutions.
  ◦ Optimized the solution to handle different board sizes dynamically.

- **Steganography (Image Processing)** *Oct 2023 - Nov 2023*
  *Tools:**HTML, CSS, JavaScript*** |
  ◦ Built a tool using a hybrid algorithm of Cryptography Advanced Encryption Standard (AES) and Least Significant Bit (LSB) to hide and retrieve information within images, ensuring the safety and security of long-distance communication.
  ◦ Encrypted messages within images, transmitted them securely, and allowed decryption on the receiver's end.

CERTIFICATIONS

◦ Introduction to DevOps Tools, **SimpliLearn SkillUp** — Oct 2024
◦ Data Structures & Algorithms Master Course, **CODE HELP** — Sep 2024
◦ Getting Started with NodeJS, **SimpliLearn SkillUp** — Sep 2024
◦ Software Development Trainee, **AMCAT** — Dec 2023
◦ Web Development Bootcamp, **Udemy** — Aug 2023
◦ Web Development Training, **Internshala** — May 2021
◦ Ethical Hacking - Workshop, **IIT Patna** — Aug 2019

ADDITIONAL INFORMATION

LeetCode: 150 Challenge
Languages: English (Proficient), Hindi (Native)