# Khagendra Parashar

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### **Technical Skills**

- Languages: C++, JavaScript, Python, SQL (Basic).
- Web Development: HTML, CSS, Next.js, Node.js, Express.js, MongoDB, WebSockets.
- Tools & Platforms: Git, AWS, Visual Studio Code, Xcode, Jupyter Notebooks.
- Computer Science Fundamentals: Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, DBMS.
- Problem Solving: 800+ DSA problems solved on LeetCode (1763 rating), CodeChef (4-star, 1824 rating), GeeksforGeeks.

## Education

# National Institute of Technology, Raipur

2022 - 2026

B.Tech in Electronics & Communication Engineering

CGPA: 8.00/10

Relevant Coursework: Data Structures & Algorithms, Computer Networks, Database Systems, Operating Systems, communication networks

## Software Engineering Projects

#### AI Finance Platform: Intelligent Investment Assistant

Apr 2025 - May 2025

- Built a web-based AI finance platform using the MERN stack to provide stock insights, investment summaries, and market sentiment analysis
- Integrated GPT-based APIs to generate user-friendly explanations of financial trends and company performance
- Developed RESTful APIs in Node.js and Express to fetch live stock data using Alpha Vantage and Yahoo Finance APIs
- Designed responsive React.js frontend for displaying charts, technical indicators, and user portfolios
- Containerized the application using Docker and deployed it on AWS for scalability and remote access

#### kisanseva.ai: Farmer Assistance Platform

Sep 2024 - Nov 2024

- Developed a full-stack MERN application with TensorFlow.js for on-device ML predictions in rural areas
- Built and trained convolutional neural networks (85% accuracy) for crop disease detection using Python/TensorFlow
- $\bullet$  Implemented client-side caching and optimization techniques, reducing API calls by 30% and data usage by 25%
- Created offline-first architecture allowing farmers to access critical information in low-connectivity areas
- Containerized microservices using Docker and deployed on AWS ECS with auto-scaling for 500+ daily users

## AlgoViz3D: Data Structures & Algorithms 3D Visualizer

Oct 2024 - Dec 2024

- ullet Built an interactive 3D algorithm visualization platform using Three.js, React and custom WebGL shaders
- Implemented 15+ algorithms with step-by-step execution, time complexity visualization, and performance metrics
- Created component-based architecture with React hooks for state management and algorithm execution control
- Optimized rendering performance using spatial partitioning and level-of-detail techniques, achieving 60+ FPS

### Software Engineering Experience

# Engineering Intern, Rajasthan Electronics & Instruments Limited (REIL)

 $May\ 2024 - Jul\ 2024$ 

- Automated sensor data collection using Python scripts for microcontroller-based testing setups
- Assisted in calibration and testing of hardware modules involving ADCs, control panels, and solar systems
- Created basic dashboards to visualize real-time sensor readings and improve test accuracy

## **Technical Achievements**

- Winner of RTU Kota's Hackfest 2024 for designing an AI-driven agriculture platform
- Finalist in Adobe Gensolve 2024, recognized for innovative cloud-based software solutions with microservices architecture
- Runner-up in the Flipkart Grid Contest for developing scalable e-commerce infrastructure handling peak traffic loads
- 4-star rating on CodeChef (1824) with consistent performance in competitive programming contests
- 3rd position in DSA competition at IIIT Naya Raipur, showcasing strong algorithmic and problem-solving skills

### Leadership & Extracurricular

#### Technical Coordinator, Robotix Club, NIT Raipur

2023 - 2024

- Conducted hands-on coding and electronics workshops for 50+ students on Arduino, sensors, and basic robotics
- Helped juniors with DSA and project work, improving their problem-solving and coding skills
- Organized team activities like debugging sessions and coding sprints to improve collaboration and coding speed

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