# Abhinav Kumar Jha

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## EDUCATION

**JIS College of Engineering**                                                        Kalyani, Nadia
*Bachelor of Technology in Information Technology*                   *August 2023 – June 2027*
- CGPA : **7.93**

## EXPERIENCE

**India Meteorological Department – RMC Kolkata, Alipore**                    Kolkata, India
*Project Intern*                                                                *May 2025 – June 2025*
- Developed **Vristhi**, a real-time rainfall visualization system using FastAPI, Python, Redis, and React for dynamic radar data display.
- Converted .vol radar files to **NetCDF format**, enabling standardized processing and visualization.
- Collaborated on cloud deployment and designed an animated, user-friendly UI for real-time weather insights.
- Collaborated in backend development with a teammate to streamline data flow, optimize performance, and ensure smooth frontend integration.

## TECHNICAL SKILLS

**Programming Languages:** C++ (DSA), Python, JavaScript, C

**Backend Development:** Node.js, Express.js, FastAPI, REST APIs

**Frontend Development:** HTML, CSS, JavaScript, React.js (basic), Responsive UI
**Database & Cloud:** MongoDB, Google Cloud Platform (GCP), Vercel, basic AWS (EC2/S3)
**DevOps & Tools:** Docker, Git, GitHub, VS Code, Postman
**Others:** API Integration, Debugging & Optimization

## PROJECTS

**Vristhi – Real-Time Rainfall Visualization Tool**

- Developed a web-based system for real-time radar-based rainfall visualization using FastAPI and React.
- Processed .vol radar files into NetCDF format and visualized data using wradlib, xarray, and globe.gl.
- Implemented rain/no-rain animations and responsive UI with user interaction via OpenFeatureMap.
- Deployed the project with Redis backend support and cloud integration for scalable data access.
- **Tech Stack:** Python, FastAPI, React.js, Redis, xarray, wradlib, globe.gl, OpenFeatureMap, Google Cloud, AWS (basic)

**Node Dev – Blogging Platform for Developers**

- Created a full-stack blogging web app allowing developers to post content with photos, headlines, and descriptions.
- Implemented secure user authentication (signup/login/logout) and dynamic content rendering.
- Added "All Posts" and responsive Home Page with clean UI for mobile and desktop users.
- Focused on modular architecture, real-time updates, and multi-user session handling.
- **Tech Stack:** Node.js, Express.js, MongoDB, HTML, CSS, JavaScript, Vercel, GitHub

## CERTIFICATIONS

**Decode C++: Mastering Data Structures and Algorithms** – PW Skill