Alok Raj

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Education

VIT Bhopal University	Sep 2023 – May 2027
B.Tech in Computer Science and Engineering (Cloud Computing and Automation)	*CGPA: 8.85*
GD DAV Public School, Deoghar, Jharkhand	Jul 2020 – Jun 2022
CBSE Class XII	*89.2%*
Saint Francis School, Deoghar, Jharkhand	Mar 2008 – Jun 2020
ICSE Class X	*85.6%*

Technical Skills

Languages: Python, Java, JavaScript, SQL

Web Development: React.js, HTML5, CSS3, REST APIs

Cloud Platforms: AWS (Lambda, API Gateway, DynamoDB, S3, EC2, CloudWatch, EventBridge, Bedrock, Rekognition, IAM) / GCP (foundational)

Databases: MongoDB, MySQL, DynamoDB

DevOps & Tools: Docker, Git, Postman.

Relevant Coursework: Strong foundation in Data Structures & Algorithms, Computer Networks, Operating Systems, Database Management Systems.

Experience

IPAGE: UM Services Pvt Ltd — Aug 2025 – Jan 2026
Cloud Engineer Intern – AWS Lambda & MERN Stack (Remote)

- Deployed 30+ microservice Lambda functions for DroneTV.in, handling 3 distinct registration flows (Companies, Professionals, Events) with S3 and DynamoDB integration
- Reduced AI content generation costs by 85% (*Rs.*10 → *Rs.*1.5 per generation) by implementing 3 seprate API calls and intelligent model switching between GPT-3.5 and GPT-4 based on Complexity and requirement
- Developed a token management system for users with transaction tracking, email notifications, and a role-based dashboard (User/Admin/Main) with approval workflows and real-time preview and edit capabilities

Projects

Sahayak AI – AWS Lambda, Bedrock, DynamoDB, Python, React / **Live** / **GitHub** — Sep 2025

- Engineering educational AI assistant designed to impact 60% of rural middle schools upon deployment – architecting 20+ Lambda functions with AWS Bedrock and Amazon Nova Pro for context-aware multilingual responses
- Implemented NCERT RAG pipeline with S3 and serverless Vector DB, reducing query response time by 70% compared to traditional database queries through semantic knowledge retrieval
- Developed Scheduled Content Delivery and Intelligent Doubt Solver modules with multilingual support (English, Hindi, Tamil and Marathi), serving both student and teacher interfaces with React-based dashboards

SafeX 3.0 – AWS Rekognition, Lambda, S3, IAM, Python, React / **Frontend** / **Backend** — Feb 2025

- Developed a 3-factor authentication gateway combining password validation, AWS Rekognition facial recognition, and 6-digit OTP via email for enhanced security with seamless user experience
- Built a scalable full-stack security system with React frontend and serverless AWS Lambda backend integrated with MongoDB, achieving 95% accuracy and robust email delivery system using nodemailer

Achievements & Certifications

- **Winner – Nebula Nexus Hackathon 2025, MIT Jaipur:**
- **IBM DevOps & Software Engineering Professional Certificate (10/15 certificates):** CI/CD, Docker, Kubernetes, Agile
- **AWS Knowledge: Cloud Essentials Badge:** Foundational AWS cloud services and serverless architecture