Akshat Singh

Patna, Bihar

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EDUCATION

Vellore Institute of Technology	**2022 – 2026**
*B.Tech - Computer Science and Engineering - **CGPA** - **9.11***	*Vellore, Tamil Nadu*
MDS Public School	**2020 – 2021**
*CBSE - Class XII - **Percentage** - **89.4%***	*Udaipur, Rajasthan*
Maharana Mewar Public School	**2018 – 2019**
*CBSE - Class X - **Percentage** - **94.4%***	*Udaipur, Rajasthan*

TECHNICAL SKILLS

Languages: C/C++, Java, JavaScript, SQL
Web Technologies: HTML5, CSS3, React.js, Node.js, Express.js, Tailwind CSS, Socket.IO
Database & Cloud: MongoDB, Firebase, AWS
Tools & Platforms: Git, GitHub, Render, Vercel, Postman
Key Concepts: Data Structures & Algorithms, OOPS, Computer Networks, Operating Systems

EXPERIENCE

Power Grid Corporation of India Ltd. ↗   **May 2025 – Jun 2025**
Project Intern – R&D   *Patna, India*

- Designed and deployed a **Transformer Health Monitoring Portal** that digitized manual logging, **reducing fault diagnosis time by 50%** and enabling real-time status tracking.
- Implemented **live dashboards** with Recharts for visualizing temperature, oil level, and load trends across transformers, enabling **faster anomaly detection** and preventive maintenance.
- Integrated **automated email alerts** via EmailJS, ensuring instant notification to engineers upon threshold breaches, cutting response delays from hours to minutes.
- Built secure **Firebase Authentication** with email verification and role-based access, ensuring **100% prevention of unauthorized data changes**.
- Deployed on **Vercel** with CI/CD, achieving **99.9% uptime** and ensuring full **mobile responsiveness** for use in field inspections.

PROJECTS

Real-Time Messaging Platform ↗ | React.js, Node.js, Express, MongoDB, Socket.IO   **Nov 2024**

- Engineered a full-stack messaging system enabling **instant message delivery** and **live user presence tracking (online/offline)**.
- Implemented **JWT authentication** and encrypted sessions, ensuring **100% secure** private conversations with role-based route protection.
- Enhanced user experience with **32 switchable UI themes**, responsive layouts, and seamless **media sharing** via Cloudinary integration.
- Stress-tested WebSocket architecture with simulated load, sustaining **50+ concurrent active users** without performance degradation.

Product Store ↗ | React.js, Node.js, Express, MongoDB   **Aug 2024**

- Developed a cloud-powered **product management platform** supporting **real-time addition, modification, and deletion** of items with persistent MongoDB storage.
- Improved customer engagement by integrating **light/dark theme switching** and responsive UI.
- Ensured **100% mobile usability** by testing across multiple devices and viewports, achieving consistent layout and interaction performance.

CERTIFICATIONS

- **AWS Certified Cloud Practitioner - Amazon Web Services** *(Link)*

EXTRACURRICULAR

E-Cell, VIT Vellore
Core Member

- Strategized and executed **marketing campaigns for E-Summit 2024**, improving **on-campus outreach by 30%** through **digital and offline channels**.