

# AVNINDRA KUMAR SINGH

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## Career Objective

Highly motivated Computer Science undergraduate with strong expertise in Data Structures & Algorithms, Web Development (MERN Stack), and scalable system design. Passionate about solving real-world problems and building efficient software solutions. Seeking challenging software engineering roles to contribute to impactful projects and continuously grow in a fast-paced environment.

## Education

- Dronacharya College of Engineering, Gurugram

B.Tech in Computer Science (2022 – 2026)

- Jesus & Mary School, Lucknow

Intermediate (CBSE) | 2019 – 2021 | 79%

High School | 2018 – 2019 | 80%

## Technical Skills

Languages: C, C++, Java, Python

Web Technologies: HTML, CSS, JavaScript, ReactJS

Tools & Platforms: Git, GitHub, Pycharm

Coursework: Operating Systems, Computer Networks, Databases, IoT, Blockchain Technology

## Projects

- BLOODYUNITY – Real-time Blood Donation App
- Developed a mobile application using Java, Firebase, and Mapbox API to connect blood donors and recipients through real-time location-based matching with emergency support and privacy controls.

- AI-Powered Air Pollution Monitoring & Forecasting Platform

React.js, Python (FastAPI), XGBoost, Firebase, Leaflet.js

- Built a full-stack platform that predicts next-day AQI using ML models trained on satellite (Sentinel-5P), weather (ERA-5), and ground data (OpenAQ).
- Developed an interactive map-based dashboard using React.js, Chart.js, and Leaflet.js to visualize real-time and forecasted AQI across Indian cities.
- Integrated a FastAPI backend with scikit-learn and XGBoost models to deliver AQI predictions via RESTful API.
- Enabled Firebase-based real-time AQI alerts and stored environmental data in Firestore.
- Helped citizens and policymakers monitor air pollution and take preventive actions — scalable to rural and urban areas nationwide.

🔗 Live Demo: <http://air-pollution-tracker.vercel.app>

🔗 GitHub: <https://github.com/Avnindra3030/air-pollution-tracker>

## Internships / Certifications

- Mahindra & Mahindra Limited – Intern (June 2024 – July 2024)
- Worked on industry-level research and skill development as part of training.
- Microsoft Azure Fundamentals (AZ-900)
- Gained cloud computing knowledge including IaaS, PaaS, SaaS, and Azure core services.
- Web Development (Frontend)
- Certificate course in HTML, CSS, JavaScript, and React basics.

## Extracurricular Activities

- Represented Uttar Pradesh U-16 Cricket Team
- Participated in District-Level Shooting Competitions