

ROLI RATHOUR

 Roli368  LinkedIn Profile  roli.20249024@mnnit.ac.in  Portfolio




Education

Motilal Nehru National Institute of Technology Allahabad, Prayagraj <i>B.Tech , Materials Engineering</i>	8.35 2024-Present 2028
Jawahar Navodaya Vidyalaya <i>CBSE,Lakhimpur-Kheri,UP</i>	Percentage: 90.4 2023
Jawahar Navodaya Vidyalaya <i>CBSE,Lakhimpur-Kheri,UP</i>	Percentage: 94.6 2021

Technical Skills

Programming Languages: Python, C++, JavaScript
Machine Learning: Supervised Learning, Regression, Classification, Feature Engineering, Model Evaluation
Deep Learning & NLP: CNN (Basics), Text Preprocessing, TF-IDF
Libraries: NumPy, Pandas, Matplotlib, Seaborn, Plotly, Scikit-learn, joblib
Frameworks: Flask, React.js, Express.js, Next.js, Tailwind CSS
Databases: SQL, MongoDB
Developer Tools: VS Code, Anaconda, Git, GitHub, Google Colab
Data Visualization: Power BI
Deployment & DevOps: Docker, MongoDB Atlas, GitHub Pages

PROJECTS

- Smart India Hackathon – Disaster Management Platform**  GitHub Sep-Dec,2025
- Built an IoT-based early warning system to predict water quality and water-borne disease risks using environmental and healthcare data.
 - Developed machine learning models for hotspot prediction and created dashboards for data visualization.
 - Implemented automated email alert mechanisms for high-risk zones.
 - Secured 3rd position** in the Internal Smart India Hackathon.
 - Tech Stack:** Node.js, Express.js, MongoDB, REST APIs, Flask, Pandas, NumPy, scikit-learn, Matplotlib, Joblib
- Smart Waste Segregation & Recycling System**  GitHub Nov,2025
- Developed an IoT-based smart waste segregation system to automatically classify waste into metal, wet, and dry.
 - Integrated sensor data with machine learning logic and GPS tracking to enable location-based monitoring and optimized waste collection.
 - Proposed a QR-based incentive system to encourage proper waste disposal and improve transparency.
 - Tech Stack:** Node.js, Express.js, MongoDB, REST APIs, Flask, Pandas, NumPy, scikit-learn, Matplotlib, GPS, Hardware
- Anant Yatra – Car Booking Web Application**  GitHub | Live Demo Dec-Jan 2025
- Developed a car booking platform with real-time distance calculation and fare estimation using OpenStreetMap and OSRM.
 - Implemented interactive UI components including booking forms, image sliders, driver profile, and customer reviews.
 - Tech Stack:** React.js, Tailwind CSS, OpenStreetMap, OSRM, Vercel

Positions of Responsibility

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|---|---------------------|
| Campus Ambassador, GirlScript Summer of Code 2025 (GSSoC'25) | Jun 2025 – Aug 2025 |
| Media Team Member, Robotics Club, MNNIT Allahabad | Feb 2025 – Dec 2025 |
| Content Team Member, E-Cell, MNNIT Allahabad | Feb 2025 – Present |

Achievements

- Secured 3rd Position** in the **Internal Smart India Hackathon (SIH) 2025**.
- Secured 3rd Position** in **Viral Vision** event on the **Unstop** platform, conducted by **MNNIT Allahabad** (2024).