Satyam Rana

9761608902 | Portfolio | satyam.rana.innovate@gmail.com | Github | Linkedin

---

SUMMARY:

Passionate computer science with artificial intelligence student eager to build, learn, and grow through real-world tech experiences.

TECHNICAL SKILLS:

- **Programming -** C, Python, Numpy, Pandas
- **Frontend -** HTML, CSS, JavaScript, React
- **Backend -** NodeJs, Express Js
- **Database -** mySQL, MongoDB
- Object Oriented Programing
- Git and Github

EXPERIENCE:

Research and Content Writer - Codynn | Feb 2024 - Jul 2024

- Created beginner to advanced C programming courses and tutorials.
- Designed coding challenges to enhance problem-solving skills.
- Produced project-based educational videos for learners.
- Conducted technical research to support content development.

FEATURED CERTIFICATIONS:

- Certification of Completion: Joining Data with Pandas - Datacamp
- Certification of Completion: Data Manipulation with Pandas - Datacamp
- Certification of Completion: Intermediate Python - Datacamp
- Certification of Completion: Python - Kaggle
- Certification of Completion: Generative in Practice - Sololearn
- Certification of Completion: C - Sololearn

FEATURED PROJECTS:

[LINK] **AI based Traffic Management System**

Tech Stack - Python, YOLOv8, OpenCV, Flask, Javascript

- Real-time vehicle detection using YOLOv8 for multi-lane traffic monitoring and analytics
- Implemented intelligent traffic signal timing optimization to reduce congestion at intersections
- Built simulation scripts to test traffic scenarios and signal responses

[LINK] **Rain Prediction and Humidity - Temperature Forecasting AI Model**

Tech Stack - Python, Numpy, Pandas, Sklearn

- Created a basic ML model to predict rainfall, humidity, and temperature using a small cleaned dataset
- Set up simple feature processing steps to handle core weather inputs
- Organized the project into a clean, beginner-friendly structure for easy updates

[LINK] **Air Quality Tracker**
Tech Stack - Python, Numpy, Pandas, Sklearn

- Built web interface to display real-time air quality metrics by fetching environmental data from public APIs
- Implemented backend logic for data retrieval and processing using PHP to support dynamic content updates
- Designed responsive UI with CSS and JavaScript for clear presentation of AQI values and pollutant levels
- Integrated interactive components to allow users to query air quality for different locations on demand

[LINK] **Portfolio Website**
Tech Stack - HTML, CSS, Javascript

- Frontend developed using HTML, CSS and Javascript
- Modern UI with animations
- Responsive site

[LINK] **Study Timer**
Tech Stack - HTML, CSS, Javascript, React

- Frontend developed using React
- Digital Clock and Stopwatch
- Rain music

[Link] **Modern Calculator**
Tech Stack - HTML, CSS, Javascrip

- Frontend developed using HTML and CSS
- Calculator backend work done from JavaScript.
- Does all the calculations without having to equal everytime.

Education:

1. Bsc(Hons) Computer Science with Artificial Intelligence | Birmingham City Univeristy | 2025 - 2029
2. Completed +2 | Science with Computer Science | Uniglobe Secondary School | 2080 - 2082