Santosh Kumar

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OBJECTIVE

Passionate Computer Science undergraduate with hands-on experience in **full-stack web development**, **machine learning**, and **AI-powered applications**. Skilled in building scalable systems such as SmartSpend (finance tracking) and SafeRoute (crime prediction and alerting). Actively exploring **data-driven solutions**, **user-centric design**, and **real-time analytics**.

SKILLS

Languages: C/C++, Python, JavaScript, Bash
Web Development: HTML5, CSS3, Bootstrap, React.js, Node.js, Express.js, Angular.js, REST APIs
Databases: MySQL, MongoDB, SQLite
Libraries/Frameworks: NumPy, Pandas, Scikit-learn, TensorFlow, Matplotlib, Seaborn, Flask, NLTK
Tools/Platforms: Git, GitHub, Jupyter, Google Colab, Power BI, Tableau, Hadoop, Streamlit, Docker
Areas: Machine Learning, Deep Learning, Data Visualization, Real-time Systems

TECHNICAL EXPERIENCE

ML-Based SafeRoute Crime Prediction & Real-Time Alert System   *GitHub* 🔗 |

- Developed a crime prediction app to forecast **crime type, time, and risk level** using historical and real-time geospatial data.
- Applied **Random Forest**, **DBSCAN** for classification, clustering, and time-series prediction.
- Implemented **GPS geofencing** and alerting logic using Haversine formula for mobile-based real-time warnings.

SmartSpend – Personal Finance Management System

- Designed and deployed a full-stack personal finance system using Flask and SQLite.
- Integrated bank APIs to **automatically retrieve transaction data** and applied **ML models for expense classification**.
- Enabled **real-time budget alerts** and built intuitive dashboards for actionable financial insights.

Wandulust – Hotel Management Website   link 🔗

- **Wandulust – Hotel Management Platform**: Designed and built a full-stack web application for hotel service providers to manage **bookings, listings, and user interactions**.
- Implemented **dynamic hotel listings**, booking workflows, and **responsive UI** to enhance operational efficiency and user experience.
- **Tech Stack**: HTML, CSS, JavaScript, Node.js, Express.js, EJS

EDUCATION

B.Tech in Artificial Intelligence and Data Science   Aug 2023 – May 2027
National Institute of Technology, Delhi

- GPA: 6.64/10
- **Relevant Coursework**: Data Structures & Algorithms, Artificial Intelligence, Machine Learning, Data Mining, Big Data, Operating Systems, Python, Probability & Statistics

ACTIVITIES

FPV Racing Drone Project   May 2024 – Aug 2024

Assembled and programmed a custom FPV racing drone; tuned for performance and competed in Technoxian WRC 2024. Gained hands-on experience with embedded systems, hardware optimization, and real-time control.