Alok Kumar Gupta

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Skills

Programming Languages: C, Python, Java, JavaScript
Technology and Tools: React js, Tensorflow, MatLab, Numpy, Pandas.
Framework: Node js, Flask, express js, Bootstrap, Next js
Databases: MongoDB, SQLite, MYSQL
Cloud Computation: AWS, IBM Cloud.
Relevant Coursework: Data Structures & Algorithms, Operating System, Database Management System, Object Oriented Programming, Computer Networks, Data Science

Work Experience

Intern - AI & Cloud Computing
IBM | July 2024 – August 2024

- Developed and deployed AI models using cloud-based platforms.
- Worked on machine learning and deep learning algorithms for real-world applications.
- Gained hands-on experience with IBM Cloud services and AI frameworks.

Education

Sir M. Visvesvaraya Institute of Technology, Bengaluru — Dec 2022-Jun 2026
Artificial Intelligence and Machine Learning

Project Work

License Plate Recognition using machine learning

I developed a license plate recognition system using deep learning and OpenCV, which performed well in real-world conditions. By designing and training a custom CNN model, I optimized recognition speed using TensorFlow and Keras. Additionally, I integrated Optical Character Recognition (OCR) with Tesseract to accurately extract text from license plates. This system achieved 18% more accuracy than the previously deployed application, making it more reliable and efficient.

AI Trip Planner

I created an AI-powered trip planner using React, making it easy for users to navigate with a smooth and I interactive interface. I integrated APIs to provide real-time information on travel destinations, hotels, and transportation options. For secure and personalized trip planning, I used Firebase for user authentication and real-time database management. I also designed a responsive interface with Tailwind CSS, ensuring it works well on both mobile and desktop devices.

UPI Payment Fraud Detection

I developed a UPI payment fraud detection system that identified fraudulent transactions 20% more efficiently than other applications. To achieve high accuracy, I trained models using various machine learning techniques like Logistic Regression, SVM, Random Forest, and XGBoost. I built a Flask-based web application to deploy these models, enabling real-time fraud detection. The system includes a user-friendly interface for monitoring transactions and managing fraud alerts. Additionally, I implemented data preprocessing and feature engineering to improve model performance and reduce false positives. To ensure seamless and secure fraud detection, I integrated the system with live payment gateways.

Certificates

- Data Structure and Algorithm- Coding Ninjas
- Full stack we development- IBM Skill Build