

Aviral Sanjay Gupta

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EDUCATION

Manipal University Jaipur

July 2021 - July 2025

B. Tech (Hons.) in Computer Science Engineering | **Specialization:** Artificial Intelligence & Machine Learning
– CGPA: 7.66

La Martiniere College, Lucknow

April 2014 - March 2021

(Secondary and Higher Secondary Education)

– Higher School Certificate (HSC): 90.2% – Secondary School Certificate (SSC): 82.33%

EXPERIENCE

Data Science Intern at Unified Mentor Pvt. Ltd.

July 2024 - September 2024

- Designed and implemented end-to-end ETL pipelines for Big Data processing using Python, SQL, and Pandas.
- Developed interactive dashboards in Power BI and Python, integrating predictive analytics and real-time data visualization.
- Applied Machine Learning (ML) algorithms for data-driven decision-making, focusing on model deployment.
- Executed data wrangling, feature engineering, and statistical analysis to optimize business intelligence workflows.

COURSES

Introduction to Cybersecurity by Great Learning

February 2025

Skills: Cybersecurity Fundamentals, Network Security, Threat Analysis

Design and Analysis of Algorithms by NPTEL

October 2023

Skills: Data Structures, Algorithm Design, Time & Space Complexity analysis

Data Structures and Algorithms Python: The Complete Bootcamp by Udemy

November 2022

Skills: Python, Algorithm Optimization, Data Structure Implementation

Crash Course on Python by Google

November 2022

Skills: Python (Programming Language)

Database Foundations by Oracle Academy

October 2022

Skills: Database Management Systems (DBMS), SQL

PROJECTS

Emergency Vehicle Detection System using Deep Learning & OpenCV

August 2023 - December 2023

- Engineered a deep learning-based emergency vehicle detection system to enhance traffic management and prioritization using Computer Vision and AI-driven object recognition.
- Trained and deployed an Intensive CNN model, achieving 96.47% training accuracy and 95.22% validation accuracy for real-time emergency vehicle classification.

Road Crack Detection for Automated Infrastructure Maintenance

January 2024 - May 2024

- Developed an AI-powered road crack detection system using UAV imagery and deep learning models (YOLOv5, YOLOv7, YOLOv8), enhancing automated infrastructure maintenance with a high accuracy of 85.90% (mAP@.5).
- Implemented advanced object detection algorithms and trained models on the RDD2022 dataset, optimizing real-time road damage identification and reducing manual inspection efforts.

SKILLS

Software Engineering & Development: C, Python, Java, HTML5, CSS, DSA, OOP, SQL

Data Analytics: Scikit-Learn, Data Analysis, Numpy, Pandas, Predictive Analysis, Feature Engineering, Deep Learning, ETL Pipelines, Data Wrangling, Model Deployment, Machine Learning (ML), Artificial Intelligence (AI)

Databases & Cybersecurity: PowerBI, Database Management, Network Security

Design Tools: Adobe Photoshop, Adobe Illustrator, Canva

Soft Skills: Problem-Solving, Adaptability, Leadership, Communication, Analytical Thinking, Aptitude & Reasoning

Language proficiencies: English (professional working proficiency), Hindi (native-speaker)

Interests & Hobbies: Singing, Painting, Athletics, Trekking

EXTRACURRICULAR ACTIVITIES

Managing Director - NEXUS: Space, Research & Technology Club, MUJ

July 2023 - May 2024

- Led technical initiatives to foster innovation, research, and interdisciplinary collaboration.
- Organized high-impact workshops, seminars, and events, enhancing STEM engagement.
- Managed team operations and outreach, driving participation in space, technology, and research.