Harshita Duggal

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Career Objective

To secure a challenging role in a growth-oriented organization where I can apply my skills in programming, web development, and AI/ML, while continuously learning and contributing to innovative, impactful projects.

Education

UPES Dehradun, India July 2023 - June 2026

Bachelors of computer applications – AIML CGPA: 8.1/10.0

Ryan International School, India March 2022 - May 2023

CBSE Higher Secondary Certificate Percentage: 79.8/100.0

Ryan International School, India March 2020 - June 2021

CBSE Secondary School Certificate Percentage: 78/100.0

Internship

Social Intern June 2024 – July 2024

Shape India NGO Delhi, India

- Contributed to initiatives focused on women's rights, gender equality, and community outreach.
- Participated in awareness campaigns and supported documentation/reporting tasks.
- Developed a deeper understanding of social impact, human rights, and fieldwork ethics.

Projects

"photomosaic generator" June 2025 – Present

- Technologies used- python, opencv, numpy
- Developed a Python-based application that converts a single image into a photomosaic composed of thousands of smaller tile images.
- Used opencv for image processing and NumPy for pixel-level manipulation.
- Implemented average color matching to dynamically replace segments of the main image with the closest matching tiles
- Currently working on transforming the project into a web application to make it interactive and accessible via browser.

"AI book recommender" May 2025 – June 2025

- technologies used-python, langchain
- Built a conversational book recommendation system using LangChain, enabling natural language interaction with users.
- Integrated LLMs to understand user preferences and suggest personalized books.
- Used vector databases for similarity search across book summaries or genres.

"Vehicle CO_2 Emissions Prediction Web App" Jan 2025 – Apr 2025

- Technologies Used – Python, Scikit-learn, Pandas, Matplotlib
- Developed a machine learning-based web application to predict vehicle CO_2 emission categories .
- Implemented multiple models (Random Forest, Decision Tree, KNN) and achieved a test accuracy of 98.56%.
- Integrated feature selection, model comparison, and clustering analysis (DBSCAN) for deeper data insights.

- Built an interactive prediction form allowing users to input vehicle specifications and get real-me emission predictions.

"**Traffic Accident Analysis Dashboard "** Nov 2024- Dec 2024

- **Technology used**- Ms-Excel
- Developed a comprehensive dashboard to visualize traffic accident trends using pivot tables, charts, slicers, and conditional formatting.
- Analyzed patterns based on location, time, and severity, helping identify high-risk zones and critical insights.
- Focused on clean design and data storytelling to enhance readability and decision-making support.

Skills

Programming languages: C++, Java, Python, JavaScript

Web Technologies: HTML CSS, React

ML/AI: NLP, genAI, vector databases, langchain ,pytorch

Express.js, Nodejs, Tailwind

Soft Skills: Communication, Leadership and Teamwork

Miscellaneous: PostgreSQL, PGvector, mySQL, mongodb, Git, GitHub

Data analysis and visualization- PowerBI, Excel, matplotlib, pandas , numpys

Technical Certifications

- Data Environment - Exploratory Courses
- Data Management– Exploratory Courses
- React.js-Guvi
- UPES-Node.js course, Guvi