# ARCHITA SHRIVASTAVA

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#### **EDUCATION**

Vellore Institute of Technology B.Tech in Computer Science; GPA: 8.23

Delhi Public School Kolar Road

Class - XII (CBSE), Grade: 87.8%

Delhi Public School Kolar Road

Class -X (CBSE), Grade - 89%

November 2022 - May 2026

Bhopal, India

Email: architashrivastava2022@vitbhopal.ac.in

March 2021 - May 2022

Bhopal, India

March 2019 - May 2020

Bhopal, India

## **TECHNICAL SKILLS**

Languages: Python, SQL, C++

Machine Learning: Classification, Regression, XGBoost

- Deep Learning Frameworks: Tensorflow, CNNs, LangChain
- NLP & Generative AI: FAISS, Vector Stores, Tokenization, Text Classification
- Computer Vision: OpenCV, Image Processing, Object Detection
- Data Processing & Analytics: Pandas, NumPy, Matplotlib, Seaborn
- Cloud & Deployment: AWS, Streamlit, Flask

## **EXPERIENCE**

## Data Science and Analytics Intern | Zidio Development

January 2025 - February 2025

- O Automated data preprocessing and analysis pipelines in Python, reducing manual processing time by 70%.
- O Applied 4+ ML algorithms ( K-Means, Logistic Regression, Linear Regression, and Random Forest ) to test model accuracy and cluster patterns, achieving up to 88% prediction accuracy.
- Ocllaborated with a team of 3 interns to deliver a mini data science solution on time and presented findings to senior developers.

#### **PROJECTS**

## **YOLOv8 -Real Time Object Detection**

May 2025 - Present

- Obeveloped a custom YOLOv8- based vehicle detection system to identify multiple vehicle classes(cars, trucks, buses) with realtime images.
- OTrained model on a custom annotated dataset using **Ultralytics** YOLOv8 and visualized detection insights using Pandas.
- Built an interactive streamlit web app to visualize detection with bounding boxes, class-wise counts.

## **Asteroid Classification using XGBoost**

September 2024

- O Developed an **XGBoost**-based classification model to predict hazardous asteroids.
- Achieved 92% accuracy on NASA's asteroid dataset by optimizing hyperparameters.
- O Engineered and selected critical features to improve model precision, minimizing false positives in hazardous object classification.

## **Intelligent Conversational System on PDF Files**

March 2024 - April 2024

- O Used NLP techniques like tokenization, text classification, and keyword matching to identify and extract key sections from PDF documents using PyPDF2, Faiss, and Vector Store.
- O Implemented semantic search by converting PDF content into vector embeddings and enabling context-aware responses through LLM-powered text generation.
- O Developed interactive conservation python app using Streamlit, LangChain, and Google Generative AI to generate human-like responses from PDFs.

## **CERTIFICATIONS**

## **Marketing Analytics (NPTEL)**

May 2025

- Scored 81% (Top 5% of 1544 candidates).
- Ocvered Marketing metrics, data analysis, regression, segmentation, CLV, A/B testing.

# **AWS Solutions Architect- Associate Certification Program (Ethnus)**

April 2025

- Gained expertise in designing highly available, cost-efficient, and scalable cloud architectures.
- Hands-on knowledge of VPC, EC2, S3, RDS, IAM, Load Balancing, and Auto Scaling.

## **Artificial Intelligence (SmartInternz)**

April 2025

- O Built a deep learning model using CNNs/ViTs to classify jellyfish species, aiding marine biodiversity monitoring.
- Aimed to assist marine biologists and conservationists in biodiversity research and population monitoring.

## **EXTRA CURRICULARS**

## Social Work Intern | Kshitiksha Foundation

June 2023 - July 2023

- O Volunteered at Kshitiksha Foundation to distribute food, plant trees, and care for stray animals, promoting sustainability and social welfare.
- O Participated in digital literacy initiatives, tutoring 10 students on using online learning platforms and software, thereby bridging the digital divide and enriching educational experiences in the most vulnerable community.