

EDUCATION

- Jaypee Institute of Information Technology, Noida (*Btech in Computer Science*) 2020 - 2024
- Bal Bharti Public School, Noida (*12th CBSE Boards - 92%*) 2018 - 2020

WORK EXPERIENCE

AI Engineer Trainee | Monotype - Noida (August 2024 - Present)

- Researched, built, and deployed GenAI models, including Diffusion models, GANs, and Transformers, using PyTorch, FastAPI, Docker, and cloud platforms (AWS/Azure).
- Developed **BERT-Diffusion** for font generation, **reducing design time by 30%** (Patent pending).
- Built a **three-stage diffusion** model for Japanese fonts, achieving **>90% IoU (15% improvement)**.

Python Developer Intern | Polynomial.AI - Remote (June 2024 - July 2024)

- Developed **REST APIs** using Flask, integrated MongoDB for data storage, and automated sales report extraction with Selenium.
- Designed an automation pipeline that reduced manual effort, **improving productivity by 25%**.
- Managed sales report handling with Flask APIs, MongoDB, and AWS S3.

Computer Vision Intern | GreenTech ITS LLP - New Delhi (April 2024 - May 2024)

- Worked on **Automatic Number Plate Recognition (ANPR)** and **Abandoned Object Detection** using YOLOv8, YOLO-NAS, and DeepSort.
- Optimized model inference with TensorRT and ONNX, making it **4x faster** (4it/s to 1it/s).
- Deployed models via Docker, improving ANPR accuracy from **85% to 93%**.

SKILLS

Programming:	Python, C++, CUDA, Data Structures & Algorithms (450+350 problems solved on Leetcode & Coding Ninjas)
Frameworks:	Django, FastAPI, Flask, PyTorch, TensorFlow, LangChain, Scikit-learn, Selenium
Tools:	MySQL, MongoDB, Docker/Kubernetes, Kafka, CI/CD, Wandb, AWS, Azure
Others:	Linux, Git/GitHub, Postman, VS Code, Jupyter

PROJECTS

Chest Cancer Detection Web App | TensorFlow, MLflow, Docker, Flask, AWS [Source code](#)

- Developed a **high-precision (95%) tumor detection model** for medical applications.
- Implemented a structured ML pipeline with MLflow for model monitoring and comparison.
- Deployed as a Docker container on AWS via CI/CD.

Multimodal Vision-Language Model (PaliGemma) | PyTorch, Flask [Source code](#)

- Built a **state-of-the-art vision-language model** for advanced image-based question answering.

Article Q&A with RAG | LangChain, FAISS, Streamlit [Source code](#)

- Designed a **research tool** that extracts and processes information from online sources.
- Web-scraping the URLs, splits the data into chunks, passed through OpenAI's Ada-v2 embedding encoder.
- Used **OpenAI's Ada-v2 embeddings** and FAISS for **30% faster** content retrieval.

CERTIFICATIONS

DeepLearning.AI - [Advanced Tensorflow](#), [Distributed Training](#)

Ihub IIT Roorkee - [Data Science & Machine Learning](#)