



Deepak

Passionate Data Scientist
B.Tech- Data Science & Artificial Intelligence
Indian Institute Of Technology, Bhilai

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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Major	Indian Institute of Technology, Bhilai	5.84 (Till 5th Sem)	2022-2026
Senior Secondary	UP Board	71.20 %	2021

PROJECTS

- **ZeroShot Text-to-Image Generator** Aug. 2024 - nov. 2024
Course Project, CS550 Machine Learning Github
 - Developed a deep learning model for generating high-quality images from textual descriptions using Stable Diffusion.
 - Integrated a transformer-based text encoder with GANs for zero-shot text-to-image synthesis.
 - Optimized image generation pipeline using CLIP ViT-L/14 encoder, U-Net, and VAE with OpenVINO.
 - Achieved semantic consistency and high FID scores, enabling realistic outputs.
 - Deployed a prototype on Hugging Face for real-time testing and interactive user demos.
- **Transfer-Learning-Covid-19-cxr-Classification** Jun. 2024 - may. 2024
Under by - DR. subhajit sidhanta Github
 - **Project Objective:** Fine-tuned MobileNetV2 to classify Chest X-ray images (Normal, COVID-19, Viral Pneumonia). Evaluated performance on training/validation sets.
 - Dataset: 1823 PA Chest X-rays: 536 COVID-19, 619 viral pneumonia, 668 normal cases (ages 18-75).
 - Metrics: Accuracy (95%), Precision (95%), Recall (95%), F1-Score (95%).
- **Invoice Extraction Using LLaMA 3.2 Vision Model** Dec. 2024 - Feb. 2025
Github
 - Developed an AI-powered invoice extraction system using LLaMA 3.2 Vision Model and Groq API for OCR-based text extraction.
 - Built a Streamlit-based web app that processes invoice images and exports structured data in JSON CSV formats.
 - Designed robust data validation pipelines using Pydantic, ensuring clean and correctly formatted invoice details.
 - Implemented batch processing for multiple invoices via ZIP file uploads, enhancing scalability and efficiency.
 - Successfully deployed the application on Render, making it accessible online for real-world usage.

TECHNICAL SKILLS

- **Programming & Scripting Languages:** Python*, C, C++, SQL, HTML, CSS
- **Tools Libraries::** Git, Pytorch, Tensorflow, Scikit-learn, Keras, Matplotlib, MySQL, OpenCV, Linux, Docker
- **Non Technical:** Event Management*, Team Work, Presentation Skills* * Elementary proficiency

WORK EXPERIENCE & INTERNSHIP

Computer Vision Intern | IIT Bhilai Under by Dr. Nitin Khanna May. 2024 - Jul. 2024

Collaborated on crater detection using the Segment Anything Model (SAM) and YOLOv8 to enhance accuracy and efficiency.

Applied advanced deep learning techniques for precise segmentation and recognition of craters in planetary imagery.

Focused on optimizing model performance for universal applicability across diverse terrains.

Intern(Data Science)| Encryptix May 2024 - Jun. 2024

Data preprocessing, feature engineering, model building, and evaluation with Random Forest and Gradient Boosting. Deployed models on AWS (S3, EC2)

POSITIONS OF RESPONSIBILITY

- **Head** , of Student Suggestion Forum, IIT Bhilai Apr. 2024 - present
- **Head** , of Management Committee CoSA 2024-25 IIT Bhilai Apr. 2024 - present
- **Member**, of DesignX Club, IIT Bhilai May. 2023 - Mar . 2024

ACHIEVEMENTS

- **JEE Advanced 2022**, Secured **Top 1 %** in JEE(Advanced), Joint Entrance Examination for IITs 2022
- **JEE Mains 2022**, Secured **qualified** among 2.2 million candidates appearing for the test 2022

EXTRACURRICULARS

- **Student Volunteer**, Student Mentorship Program (SMP) IIT Bhilai
- **Cordinator**, Meraz 4.0 Informals, Event IIT Bhilai
- **Convenor**, Meraz 5.0 Informals Convenor, IIT Bhilai