

Ashish Singh

+91-9320459871

ashishsingh1501@gmail.com

GitHub Profile

LinkedIn Profile

Area of Interest

Technical: *Computer Vision, Generative AI, AI Explainability*

Extracurricular: *Badminton, Hiking, Public speaking, Tutoring*

EDUCATION

Indian Institute of Technology, Roorkee

2020 –2024

Bachelor of Technology in Chemical Engineering

8.1/10

EXPERIENCE

Analyst 2 - Data Science

June 2024- Present

Accordion

Hyderabad

- Pioneered geospatial analytics by harnessing satellite imagery, sales trends, and demographic insights to pinpoint high-opportunity regions for solar panel deployment.
- Integrated geospatial intelligence into a linear optimization model, identifying 500+ high-potential ZIP codes and driving strategic market expansion.
- Implemented data-driven workforce scheduling, boosting installation efficiency by 50% while cutting costs 40%
- Engineered advanced computer vision solutions (YOLO, Detectron) with semi-supervised learning to enhance solar panel detection, refining market segmentation and targeting accuracy by 34%.

AI Research Intern - Deepfake Detection

April 2024 - June 2024

ConTrails.ai

Remote

- Designed custom datasets utilizing deepfake generation models, including FaceSwap, LipSync, and Talking Head.
- Constructed a preprocessing pipeline that downloaded specific YouTube videos, standardized them to 25 fps, and cropped clips to focus on points of interest (POI).
- Created high-fidelity deepfake datasets using FaceFusion, Video Retalking, etc., enhancing model training.
- Utilized DeepFakeBench to fine-tune the Xception model, achieving 95% accuracy on the custom dataset.

Python and Machine Learning Intern

December 2023 - February 2024

Swar Yantra Technologies Pvt. Ltd.

Remote

- Used open-source LLMs and embedding models from HuggingFace to enhance document analysis capabilities.
- Leveraged Language Models for accurate extraction of specific fields from various document types.
- Refined prompt engineering techniques, improving document extraction accuracy by 20%.

Decision Analytics Intern

May 2023 - July 2023

EXL Services

Remote

- Delivered an automated data extraction pipeline using OCR and Regex, reducing manual processing time by 60%
- Integrated language models to develop personalized expense reports that support natural language querying.
- Hosted a web interface to improve user interaction with bank statements, streamlining data analysis processes.

PROJECTS

Gen AI-powered Business Development Assistant | *Generative AI, Python, Streamlit, Faiss, Langchain*

AI-powered Business Development Assistant for client insights, case study recommendations, and strategy automation

- Built AI assistant analyzing 100+ sources to identify client pain points and engagement opportunities.
- Developed case study recommendation engine with an active feedback-driven chatbot optimizing solution matching
- Systematized PowerPoint reporting tool with Streamlit interface, reducing the manual effort from 40 to 2 hours weekly and automating strategy exports.

The Vital Extraction Challenge | *Computer Vision, Python, Pytorch, OpenCV, YOLO, Git*

A computer vision model to extract 5+ key vital signs from an image of an ECG monitor in the wild.

- Secured Silver medal in Inter-IIT Tech Meet 11.0 by achieving 93.26% accuracy in ECG vital sign extraction.
- Utilized advanced models, data augmentation, noise reduction, and semi-supervised learning, optimizing inference speed to 2.3 seconds on Google Colab CPU.

TECHNICAL SKILLS

Languages: Python, SQL, C/C++, MATLAB, JavaScript

Developer Tools: Git, Google APIs, VS Code, PyCharm, Streamlit, CVAT, Roboflow

Libraries: PyTorch, Transformers, Tensorflow, Numpy, Scikit-Learn, Regex, Pandas, LangChain