ANERI BHAVSAR

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Technical Skills

AI Technologies: Machine Learning, Deep Learning, Computer Vision, Natural Language Processing, Data Analytics, Prompt Engineering, RAG, LangChain, LangGraph, Scikit-learn, NumPy, Pandas, Matplotlib, Seaborn, NLTK, TensorRT, DeepStream
Backend, APIs and Tools: Python, SQL, FastAPI, Linux, Docker, Git, Flask, Anaconda, Jupyter Notebook, Google Colab, Kaggle,QGIS,arcGIS
Databases & Cloud: PostgreSQL, MongoDB, Redis, FAISS, Qdrant, AWS (EC2, lambda, S3, SQS)

Experience

AI/ML Engineer, Maharshi Industries Pvt Ltd. – Ahmedabad June 2025 – Present

- Developed **AI/ML and Computer Vision solutions** for defense and industrial applications, including automated inspection, surveillance, defect detection, OCR, and visual analysis.
- Built real-time AI pipelines using **Python, PyTorch, RF-DETR, OpenCV, Qwen, Gemma, and VLMs** for detection, tracking, recognition, and multi-camera analytics.
- Integrated **RGB/thermal cameras, industrial automation, and VLMs** for intelligent inspection, visual interpretation, validation, and automated reporting.
- Performed **model training, optimization, evaluation, and deployment** of production-oriented AI solutions.

Data Science Intern, BISAG-N(Meity)–Gandhinagar Jan 2025 – May 2025

- Developed **deep learning-based Computer Vision solutions** for tree, canopy, and rooftop detection using remote sensing and high-resolution satellite imagery.
- Worked with **YOLOv7, YOLOv8, YOLOv11, Faster R-CNN, Mask R-CNN, DeepLabV3+, and U-Net** for object detection and image segmentation.

Projects

AI-Based Quality Inspection System – Ministry of Defence (MIL) | RF-DETR, PyTorch, OpenCV, Qwen, Gemma, VLM.

- Developed an AI-driven quality inspection system for automated defect detection, classification, and visual analysis using RF-DETR, PyTorch, and OpenCV.
- Integrated Vision-Language Models **(Qwen and Gemma)** for intelligent defect interpretation, visual validation, and automated inspection reporting
- Built real-time AI inference pipelines for automated quality assessment and production inspection.

DivyaChakshu AI – Defense Surveillance | Indian Army | Python, YOLO, OpenCV, VLMs, RGB & Thermal Cameras

- Developed real-time AI surveillance solutions integrating object detection, facial recognition, ANPR, tracking, and multi-camera video analytics.
- Processed RGB and thermal camera streams for real-time detection, recognition, tracking, and automated surveillance.
- Designed AI-based video analytics pipelines for continuous monitoring and event-based detection across multiple camera feeds.

AI-Based Color Change Detection – DRDE, Gwalior | Python, OpenCV, Deep Learning, Computer Vision, Robotics

- Developed a Computer Vision system for automated color change detection and chemical resistance testing of materials.
- Integrated AI-based visual analysis with robotic automation to enable remote and contactless inspection.
- Designed image-processing and analysis pipelines to reduce manual inspection efforts and improve testing automation.

AI News Intelligence Agent | LangGraph, RAG, ChromaDB, FastAPI, LLMs, SQL, React

- Developed a full-stack AI News Intelligence Agent that automatically collects and processes news from multiple RSS sources.
- Implemented LLM-powered content analysis, contextual summarization, semantic search, and priority ranking using a RAG pipeline.
- Built an automated personalized daily email briefing system with scheduled news processing, intelligent filtering, and AI-generated insights.

Ask Med – AI Health & Skincare Chatbot | RAG, LangChain, ChromaDB, LLMs, Python

- Developed an AI-powered **health and skincare chatbot** using RAG, LangChain, and ChromaDB.
- Built a domain-specific knowledge base for **skincare, acne, hormonal health, and women's wellness**.
- Implemented **semantic search and context-aware response generation** using LLMs.

Education

Ganpatl University – Mehsana, Gujarat July 2021 – June 2025

B.Tech in Computer Science & Engineering-BDA CGPA: 8.59/10.0