

Aryan Singh Rawat

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Career Objective

AI/ML Engineer with experience in machine learning, computer vision, and MLOps, aiming to contribute to Cognizant's Generative AI and enterprise AI solutions. Skilled in building end-to-end ML pipelines, deploying models at scale, and integrating LLMs, RAG pipelines, embeddings, and vector databases into production systems. Strong in Python, PyTorch, MLflow, Docker, CI/CD, and cloud-based deployment, with a focus on governance, monitoring, and scalable AI solutions.

Education

Acropolis Institute of Technology & Research
B.tech in Computer Science Engineering | CGPA: 8.22

Indore, M.P
Sept 2020 – May 2024

Skills Summary

- **Languages:** Python, SQL, Bash, LaTeX
 - **Frameworks & Libraries:** PyTorch, TensorFlow, Scikit-learn, Pandas, NumPy, Matplotlib, OpenCV, Hugging Face
 - **ML & GenAI:** LLMs, RAG Pipelines, LangChain, Prompt Engineering
 - **MLOps & Deployment:** Docker, Model Deployment, CI/CD (GitHub Actions), Logging & Monitoring
 - **Soft Skills:** Agile Collaboration, Cross-functional Teamwork, Critical Thinking, Time Management

Experience

Project Research Engineer, Automotive Research Association of India – Pune June 2024 – September 2025

- Developed a high-performance data synchronization system integrating GPS, IMU, LiDAR, Radar, and 8-camera feeds; reduced end-to-end data handling and MongoDB storage latency by 50%.
 - Built a custom automated annotation pipeline for multi-sensor data, including image and point cloud labeling, improving dataset creation speed and ML training efficiency.
 - Integrated GCP APIs to enhance GPS accuracy and trip visualization; optimized reporting pipeline using Python multiprocessing, reducing report generation time from 1 hour to 30 seconds.
 - Leading development of Lane Departure Warning System for unmarked Indian roads using TensorFlow and PyTorch-based segmentation models.
 - Built an internal RAG-based technical assistant to enable semantic search and Q&A over automotive validation and calibration documents.

Projects

End-to-End ML Pipeline for Tabular Data

rawat-aryan/ML-Pipeline

- Developed a production-grade MLOps pipeline with DVC, Docker, and GitHub Actions to automate model lifecycle on tabular data.

Enterprise RAG Assistant

rawat-aryan/RAG-Assistant

- Built an enterprise-grade RAG assistant that retrieves relevant internal documents using embeddings and generates accurate, context-aware responses with LLMs

Certifications

- **MLOps Specialization** – Coursera (by Duke University) certificate
 - **Generative AI Leader Professional Certificate** – Coursera (by Google Training Cloud) certificate