

# Aryan

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## PROFILE

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AI/ML engineer focused on production-grade ML systems, MLOps pipelines, and GenAI applications with experience deploying scalable end-to-end machine learning solutions.

## TECHNICAL SKILLS

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**Programming:** Python, C, C++

**Machine Learning:** Supervised & Unsupervised Learning, Regression, Classification, Clustering (K-Means, DBSCAN), Ensemble Methods (XGBoost, LightGBM, Stacking), Dimensionality Reduction (PCA), Hyperparameter Tuning (Optuna), Scikit-learn

**Deep Learning:** ANN, CNN, RNN, LSTM, GRU, Encoder-Decoder, Transformers, Transfer Learning, Object Detection, Image Segmentation, TensorFlow, PyTorch

**Generative AI:** LangChain, RAG, HuggingFace, Groq, Embeddings, Vector Stores

**MLOps:** MLflow, DVC, Docker, AWS (EC2, ECR, S3, CodeDeploy), CI/CD (GitHub Actions), Model Registry, Experiment Tracking, FastAPI, Flask, Streamlit

**Data & Visualization:** Pandas, NumPy, Matplotlib, Seaborn, Plotly

**Database:** MySQL, SQL

**Developer Tools:** Git, GitHub, Jupyter Notebook, VS Code, PyCharm, Google Colab

## PROJECTS

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### YouTube RAG Intelligence

🔗 Source Code | 📺 Live Demo

- AI-powered assistant that lets users chat with any YouTube video; fetches transcript, builds a FAISS vector store, and answers questions grounded in video content via RAG.
- Built with LangChain, Groq LLaMA 3.3 70B, HuggingFace all-MiniLM-L6-v2, and FAISS; features streaming responses, map-reduce summarization, and transcript explorer with keyword search and YouTube timestamp linking.

### Conversational PDF RAG Chatbot

🔗 Source Code | 📺 Live Demo

- AI-powered chatbot that lets users upload multiple PDFs and converse with their content; history-aware retriever reformulates follow-up questions into standalone queries for accurate contextual retrieval.
- Built with LangChain, Groq LLaMA 3.3 70B, HuggingFace all-MiniLM-L6-v2 embeddings, and ChromaDB; features token-by-token streaming, session-based multi-conversation memory, and chunk-level PDF ingestion (chunk size 5000, overlap 500).

### Twitter Sentiment Analysis — MLOps Pipeline

🔗 Source Code | 📺 Live Demo

- End-to-end MLOps backend for a 3-class Twitter sentiment classifier (Positive / Negative / Neutral); powers a YouTube Chrome Extension returning real-time sentiment predictions via a Flask REST API.
- Built a 7-stage DVC pipeline; selected LightGBM via Optuna HPO across 8 models achieving 91.1% accuracy and 91.1% weighted F1; tracked experiments on [MLflow](#) via DagsHub.
- Built a full GitHub Actions CI/CD pipeline; runs pytest suites for model loading, signature, performance, and API validation before promoting the Docker image to AWS ECR; deployed to AWS EC2 via AWS CodeDeploy with model aliased @production only on all tests passing.

## EDUCATION

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### Kurukshetra University, Kurukshetra

2023 - 2026

Bachelor of Computer Applications (BCA) - Distance Education

### Government Polytechnic Umri, Kurukshetra

2023 - 2025

Diploma in Computer Engineering

### Jawahar Navodaya Vidyalaya (JNV), Kurukshetra

2016 - 2023

Completed Secondary (10th) and Senior Secondary (12th)

## ACHIEVEMENTS & LEADERSHIP

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- NCC "A" Certificate holder — National Cadet Corps, Ministry of Defence, Government of India.
- Best All-Rounder — Regional Cricket Tournament organized by Navodaya Vidyalaya Samiti.
- Actively share AI learning and technical insights by authoring 110+ technical blogs on machine learning, deep learning, and MLOps; 3K+ LinkedIn followers with 100K+ impressions.