

Aditya Parbat

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Technical Skills

Languages & Frameworks Python, SQL, TypeScript, TensorFlow, Scikit-learn, FastAPI, React
ML / LLMs CNNs, NLP, Clustering, RAG, LangChain, Prompt Engineering, Semantic Search
Infrastructure & Tools Docker, Git, Celery, Power BI, FAISS, ChromaDB, MongoDB, Redis
Computer Vision YOLOv11, ResNet50, OpenCV, Image Segmentation, Object Detection

Experience

AI & Computer Vision Intern

Jan 2026 – Present

Cerebrospark Innovations Pvt Ltd

- Engineered a **ResNet50-based crop disease classifier** achieving **93% recall**, enabling early-stage diagnosis for agricultural applications.
- Trained a **YOLOv11 real-time surveillance model** on 490+ hand-annotated images spanning 5 object classes; optimized inference latency for edge deployment.
- Designed **multi-agent reinforcement learning simulations** for decentralized swarm coordination, prototyping autonomous agent behavior at scale.

Artificial Intelligence Intern

Nov 2025 – Feb 2026

Goklyn Pvt Ltd

- Engineered production-grade **LLM pipelines using LangChain**, powering automated Q&A systems with context-aware retrieval.
- Architected a fully containerized stack (**React + FastAPI + Docker**) enabling scalable, environment-agnostic deployment.
- Built a **4-agent validation pipeline** capable of processing 200+ records with parallel orchestration and automated error handling.

Projects

Offline AI Learning Platform 🧠

Jul 2025 – Oct 2025

Python, TypeScript, SQL, Ollama, RAG, Next.js

- Built an **offline-first AI education platform** using local LLMs (Gemma3n via Ollama) to deliver multilingual Q&A, auto-generated quizzes, and flashcards from PDF content – entirely without cloud dependency.
- Designed on-device inference pipeline with a React/Next.js dashboard featuring progress tracking, gamified learning (7 games), Pomodoro timer, and XP/achievement systems.
- Engineered a RAG-based content processing pipeline to extract, chunk, and semantically index educational material for accurate retrieval.

LifeLink: Agentic Blood Donation Management System 🧠

Oct 2025 – Dec 2025

Python, FastAPI, Celery, MongoDB, Redis, Gemini AI

- Architected a **4-agent autonomous system** (AutoPulse, RapidAid, PathFinder, LinkBridge) for real-time blood inventory monitoring, emergency donor mobilization, and inter-hospital coordination – reducing response time to **under 2 minutes**.
- Integrated **Google ADK + Gemini AI** for an explainable AI assistant (LifeBot) with full tool-trace visibility and A2A agent communication via MCP.
- Implemented asynchronous task orchestration with **Celery + Redis**, running scheduled agents every 3–5 minutes across 8 blood groups and unlimited hospital nodes.

AI-Based Media Piracy Detection System 🧠

Jan 2025 – Apr 2025

Python, OpenCV, Machine Learning, Watermarking

- Achieved **98% detection accuracy** using computer vision feature extraction to identify unauthorized media distribution in real-time.
- Integrated robust **digital watermarking** for end-to-end content traceability, enabling forensic attribution of pirated assets.

Education

B.E. in Artificial Intelligence & Data Science

2023 – 2027

JSPM JSCOE, Pune

CGPA: 9.93/10 · First Rank (FY & SY)

Class XII – HSC

2023

B.K. Birla College, Kalyan

86.33% · Third Rank in College

Class X – SSC

2021

Shishuvikas High School, Kalyan

96.20% · First Rank in School

Achievements & Certifications

🏆 **National Hackathon Winner** – Waves Summit 2025

🏆 **Top 50 All India Rank** – NPTEL Machine Learning

🧠 **Generative AI Academy 2.0** – Google Cloud

🧠 **AI Agents Intensive (5-Day)** – Google

🧠 **OCI AI Foundations Associate** – Oracle

👩 **Advanced Software Engineering** – Forage

🧠 **Power BI Certification** – VOIS India

🧠 **Data Science, ML, DL, NLP Bootcamp** – Udemy