

Aryakumar Mishra

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EDUCATION

Vidyalankar Institute of Technology

Bachelor of Technology, Electronics & Computer Science (Honors in AI/ML) | CGPA: 8.78 / 10

Nov. 2022 – May. 2026

Mumbai, India

EXPERIENCE

Renewable Power Solutions (New Zealand)

Full Stack Engineer - Freelance

March. 2025 – Present

- Built and deployed a responsive Next.js corporate website optimized for performance and global accessibility.
- Designed branding assets, including business brochures, business cards, and digital identity materials.
- Collaborated directly with stakeholders to deliver production-ready features under strict timelines.

OpenHealthAgents (Health Innovators)

Generative AI Intern

Sept. 2025 – Dec. 2025

- Designed modular pipelines for document ingestion, embedding, and retrieval (LLM-based workflows).
- Conducted research on system architecture and backend development for an open-source research platform.

Suvidha Foundation

AI Research Intern

April 2025 – May 2025

- Built a BERT/roBERTa-based fake news classifier, improving recall by 12% on noisy datasets through feature fusion.
- Evaluated model generalization and classification robustness across diverse datasets to improve reliability.

PROJECTS

RedVector | Adversarial LLM Testing Framework ("BurpSuite for AI Agents")

- Built a plugin-based LLM Red-Teaming framework (FastAPI, LiteLLM, React) for prompt injection, jailbreak, and RAG poisoning evaluation.
- Developed a layered evaluator combining embeddings, refusal detection, and LLM-as-judge scoring to reduce false positives.
- Exposed a 100% prompt injection vulnerability in Llama-3.1-8B and deployed the platform with Docker, Render/Vercel, and 30+ tests.

Sentinel-AI | Autonomous Agentic DevOps Pipeline

- Built a self-healing CI/CD orchestration platform using FastAPI, Next.js, and Google ADK (Gemini 3.1 Flash Lite).
- Developed an MCP server to automate GitLab pipeline failure analysis and regression tracking.
- Optimized React polling with tab-visibility awareness, reducing unnecessary server load by 70%+.

FieldAssist AI | Air-Gapped RAG Engine

- Engineered a cloud-independent, air-gapped RAG system for secure retrieval of legal and procedural information.
- Implemented multi-domain vector isolation across three specialized corpora to improve contextual retrieval quality.
- Built REST APIs and a responsive frontend interface deployable within constrained enterprise environments.

ACHIEVEMENTS

Smart India Hackathon

Grand Finalists

Dec. 2024

IIT Gandhinagar

- * Created BuildVisionAI, a construction site monitoring platform, using Flask and React integrating YOLOv5 object detection + ResNet + DeepLab v3+ for site analytics.

SKILLS

Languages : Python (Primary), JavaScript, SQL, C++

AI/ML : Deep Learning, Transformers, RAG, LLM Orchestration (LangChain/LangGraph), Model Context Protocol, Adversarial ML

Engineering : Data Structures, FastAPI, Flask, ReactJS, NodeJS, Docker, Git, Linux, REST API

Databases : PostgreSQL, MongoDB, Vector DBs

Soft Skills : Leadership, Analytical Thinking, Communication, Adaptability

CERTIFICATIONS & COURSEWORK

Machine Learning Specialization : DeepLearning.AI and Stanford University via Coursera – Oct 2024

Microwave Satellite Data Processing : CSRE, Indian Institute of Technology, Bombay – On Campus; July 2024)