Aadarsh Pathre

Chinchwad, Pune | +91 7769940007 | aadarshpathre.23@gmail.com | linkedin.com/in/aadarshpathre | github.com/AadarshCanCode

Education

Vishwakarma University 8.63 June 2024 – June 2027
BTech in Computer Science Engineering – AI and ML

Ajeenkya D Y Patil School of Engineering June 2021 – May 2024
Diploma in AIML

Experience

Cloud & DevOps Engineering Intern Jan 2026 – Jun 2026
Auracle Labs

- Contributed to the development and production deployment of web applications across frontend, backend, and AWS cloud infrastructure.
- Managed production deployments, hosting, DNS, SSL/TLS, and cloud resources while supporting system architecture and cost optimization.
- Evaluated and tested Utho as a potential AWS alternative, assessing its infrastructure capabilities and migration feasibility.

Software Developer Intern Oct 2025 – Nov 2025
Bootcoding *Remote*

- Built **resume analysis pipeline** in NestJS and PostgreSQL/MySQL; integrated an LLM to parse uploaded resumes, extract structured fields, and generate a numeric score per submission.
- Designed **asynchronous YouTube & PDF summarization pipeline** using BullMQ and Redis for parallel job processing, reducing average summarization turnaround by **30%**; monitored build and deployment jobs via **Jenkins**.
- Built **event management and Daily Rapid-Fire Challenge system**, automating event scheduling, scoring, and leaderboard updates, reducing manual overhead by **80%**.

AI Team Member Dec 2024 – Dec 2025
Multi-Disciplinary Drone

- Developed **LIDAR integration and mapping system** on Raspberry Pi 5 using Python, enabling real-time 3D environmental mapping for autonomous navigation at 15Hz update rate.
- Architected **GPS-free autonomous drone system** using visual SLAM, YOLOv5 object detection, and MiDaS depth estimation, achieving 95% navigation accuracy in indoor environments.
- Implemented **radio-free video transmission pipeline** from drone to ground system using WiFi Direct, reducing latency by 40%.

Junior Data Science Intern June 2023 – Sept 2023
i3systems.ai

- Designed and trained **custom SpaCy NER model** for insurance document processing, achieving 92% precision across 15 entity types and processing 1,000+ documents daily.
- Built **end-to-end automation pipeline** integrating OCR, NLP models, and data validation, reducing manual processing time by 60% and saving 200+ hours monthly.
- Collaborated with **cross-functional engineering team** to deploy models into production on Linux environments.

Projects

Minimal Attack Response Procedure (MARP) Toolkit | *Linux, Bash, Forensics Tools*

- Built an automated **malware incident response toolkit** to accelerate containment, evidence collection, and system recovery; mirrors **vulnerability detection and remediation workflows** used in enterprise exposure management.
- Automated **forensic data acquisition** (logs, configurations, memory dumps), enabling structured analysis aligned with vulnerability testing and reporting pipelines.
- Integrated **Wireshark, Zeek, Volatility, YARA, ClamAV, and rkhunter** into a unified workflow for network, memory, and malware analysis – enabling **comprehensive test coverage** across attack surface vectors.
- Implemented **NFS-based remote execution** and **golden image remediation** to isolate infected systems and restore clean states, simulating enterprise-scale vulnerability remediation.

Skoda AI/ML Based Building & Energy Management System (BMS/EMS) | *BMS,AI Automation*

- Developing intelligent BMS/EMS for Skoda manufacturing facilities; implemented time-series forecasting models (LSTM, XGBoost) achieving **87% accuracy** and reducing energy waste by 18%.
- Designed centralized failure management dashboard with automated alert mechanisms and anomaly detection, reducing maintenance downtime by **25%**.

Movinglines | *FastAPI, Next.js, LangChain, Pinecone, Supabase, Docker, Azure ACR*

- Generates 3Blue1Brown-style math animations from plain-text input in under 30 seconds using a **four-step LLM pipeline**: planning, code generation, rendering, and automated error correction.
- Indexed **150+ Manim code examples** in Pinecone for RAG retrieval to ground LLM outputs and auto-patch deprecated methods; leveraged **Claude and GitHub Copilot** throughout the development lifecycle.
- Streamed real-time progress via Socket.IO; stored rendered videos in Supabase; containerized with Docker and hosted via Azure ACR.

Technical Skills

Languages: Python, C, C++, SQL, JavaScript, TypeScript, Bash
Web & Backend: FastAPI, NestJS, Next.js, Django, Node.js, Flask, Express, ReactJS, Tailwind CSS, Socket.IO
Databases & Queues: PostgreSQL, MySQL, MongoDB, Redis, BullMQ, pgvector, FAISS, Pinecone, ChromaDB, Supabase, Kafka
AI/ML & LLM Tools: PyTorch, TensorFlow, Scikit-learn, Hugging Face Transformers, LangChain, LangGraph, LlamaIndex, SpaCy, OpenCV
Cloud & DevOps: AWS (EC2, S3, Lambda), GCP, Azure ACR, Docker, Jenkins, Git, Linux, Vercel, n8n
Collaboration: Slack, Jira, GitHub
Security & Specialized: OWASP ZAP, Wireshark, Zeek, Volatility, YARA, ClamAV, rkhunter, Visual SLAM, MLflow, Z3 Theorem Prover

Achievements & Certifications

Authorized Web Security Tester at **Beeman (beeman.org.in)** –authorized to perform a live web application vulnerability assessment using **OWASP ZAP**; scope includes architecture analysis, risk classification, and a full remediation report.
1st Place at **Vodafone Innovation (VOIS) Hackathon** – built a fake job detection and website verification tool using AI, earning a **Rs. 2,00,000 prize**.
1st Place at **IBM Hackathon** among 15 colleges at Vishwakarma University for developing a multi-agent AI solution using IBM Watsonx and Cloud; presented at **IBM Summit, Delhi**.
1st Place at **Codeathon 2025** inter-departmental Machine Learning Hackathon hosted by Vishwakarma University, competing against 20+ teams.
Deployed AI Headcount System at Shri Mahalaxmi Mandir, Pune during Navratri 2025, managing 50,000+ daily visitors and improving crowd flow efficiency by 30% through real-time occupancy monitoring.

Certifications: IBM Full Stack Software Developer | LangChain for LLM Application Development | Project Management Certification