

ADITYA ANIL

Software Developer & AI/ML Engineer

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PROFESSIONAL SUMMARY

B.Tech Computer Science (AI) student specialising in **Agentic AI architectures** and **deep learning pipelines**. Published researcher (IEEE) with deep hands-on experience building **local autonomous LLM workflows** and high-scale open-source tools (**6,000+ contributions**). Proficient in **PyTorch, LangChain**, and optimising local inference execution. Seeking a part-time role or internship in **AI/ML Engineering**.

EDUCATION

B.Tech, Computer Science & Engineering (AI), *Amrita Vishwa Vidyapeetham* CGPA: 8.7 | Graduating – Sep 2028

- Specialisation in Artificial Intelligence with coursework in: **Machine Learning, Deep Learning, Reinforcement Learning, Natural Language Processing, Computer Vision & Image Processing, Database Management Systems**, and **AI Robotics**

RESEARCH AND PUBLICATIONS

EfficientNet-B0 Multi-Scale Feature Fusion with Enhanced Skip Connections for Polyp Segmentation 📄 Jul 2025
IEEE ICCNT 2025 held at IIT Indore

- Developed a state-of-the-art Deep Learning Model using **U-Net architecture** with a pre-trained **EfficientNet-B0 encoder** for accurate colorectal polyp segmentation in colonoscopy images, addressing challenges in early **colorectal cancer detection**.
- Achieved **Dice 0.959 / IoU 0.922** with skip connections (vs. 0.935 / 0.880 without), improving boundary precision for medical CAD systems.

EXPERIENCE & CONTRIBUTIONS

Software Engineer and AI Model Evaluator, *PlatinaData.AI* India | Jul 2026

- Built **software engineering evaluation repositories**, test suites, and containerized environments to benchmark **autonomous coding agents** and **LLM performance** across multi-file codebases.
- Audited **agent trajectories, CLI commands, shell executions, and code changes**, validating pull request solutions for reproducible and reliable AI benchmarks.

AI Drug Discovery Research & Development Intern, *PSPM Technologies* Jul 2026

- Engineered **CADD** and **in-silico drug discovery pipelines** using **AlphaFold2, GNINA, ADMET-AI, and AMBER** for protein modeling, molecular docking, ADMET analysis, and molecular dynamics.
- Developed an AI-powered **Bioinformatics platform** with **Python, FastAPI, React, Next.js, Ollama, Llama 3.1, and MCP** to automate computational workflows.

AI and Blockchains Developer, *EtherAuthority* Andhra Pradesh, India | Dec 2025 – Feb 2026

- Engineered **AI-powered financial predictive models** for market simulation and portfolio forecasting.
- Designed **gas-optimised, secure contracts** (role-based access, reentrancy protection) deployed on Etherscan/Telegram with **Blockchain's NFT integration**.

Open Source Contributor India | Jul 2023 – Present

- Achieved **Top 0.5% Contributor status** globally with **6,000+ contributions** across Python, C++, Go, and JS repositories.
- Built **AgentTool** (autonomous local LLM agent with tool-calling for search/file/execution), **RILearn** (interactive PWA), and **Mars Rover Path Finder** (optimised A* navigation with 30% faster computation)

RECENT PROJECTS

AgentTool 📄, *Terminal-based Agentic AI Assistant / Python* Jun 2026

- Built an **autonomous agentic coding/research assistant** powered by local LLMs (**Ollama/LM Studio**) with **tool-calling capabilities** for web search, file operations, command execution, and read-search-write loops.
- Demonstrated practical agentic AI workflows by enabling **isolated local LLMs** to interact with the environment autonomously.

Mars Rover Path Finder Simulation 📄, *Autonomous Navigation System / Python* Nov 2025

- Engineered an intelligent simulation for planetary rover path planning using **optimised A* heuristic search** with terrain-aware cost models and motion primitives.
- Achieved **30% reduction in mean computation time** through reactive control strategies.

TECHNICAL SKILLS

- Languages:** Python, Java, C/C++, GoLang, TypeScript, JavaScript
- AI/ML:** TensorFlow, PyTorch, scikit-learn, OpenCV, LangChain, Hugging Face
- Developer Tools:** Git, Docker, Linux (Arch/Ubuntu), GitHub Actions CI/CD

CERTIFICATION

IIT and CDAC Quantum Computing Certification 📄

- Ranked among **top performers out of 28,000+ participants**, earning a Certificate of Merit.
- Built and simulated quantum programs while exploring algorithms such as QFT, Grover's Search, and Variational Circuits.

Gold medal in Cyber Eduheal Olympiad

- Gold Medalist**, Cyber EduHeal Olympiad; ranked among top national performers in **cybersecurity, algorithms, and logical problem-solving**.

LANGUAGES

English — Fluent | **Hindi** — Fluent | **Malayalam** — Conversational | **German** — Basic