

HARIKARTHIK A

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Education

Prince Shri Venkateshwara Padmavathy Engineering College

Bachelor of Science in Computer Science (CGPA: 8.2 / 10)

2022 - 2026

Chennai, Tamilnadu

St. Vincent Matriculation Higher Secondary School

Higher Secondary Certificate (76%)

2020 - 2022

Chennai, Tamilnadu

Technical Skills

Languages: Python

Frameworks: FastAPI, Flask, Streamlit, LangChain, LangGraph

Databases: PostgreSQL, pgvector, FAISS

Tools: Docker, Git, GitHub, Railway, Render, Vercel

Concepts: Machine Learning, Generative AI, RAG, Multi-Agent Systems

Experience

Artificial Intelligence Intern

Nov 2025 – Jan 2026

Infosys Springboard

Remote

- Developing an AI-based Cat Emotion Recognition System using CNNs for facial analysis and LSTM models for audio classification. Implemented data pipelines, trained multi-modal models, and deployed a Streamlit web app for real-time predictions.

NIIT Foundation

Aug 2025 – Sept 2025

Cybersecurity with AI Intern

Remote

- Studied AI-driven threat detection methods and basic vulnerability analysis.
- Explored cybersecurity concepts and security analysis using AI-based techniques.

Projects

AutoEval – Multi-Agent Developer Assessment Platform | Python, FastAPI, LangGraph, Groq, pgvector, React, Docker

- Architected a multi-agent AI pipeline using LangGraph that orchestrates dual LLM scoring (Llama 3.3-70B and Llama 3.1-8B via Groq) across 8 evaluation rubrics with a consensus layer that detects score conflicts greater than 1.5 points.
- Built a GitHub REST API ingestion layer and generated 384-dimensional semantic embeddings using sentence-transformers, stored in PostgreSQL with pgvector for semantic candidate similarity search.
- Implemented smart caching logic in the FastAPI backend to detect meaningful GitHub profile changes before triggering re-evaluation, reducing unnecessary score drift and API usage.
- Containerized the stack with Docker and deployed FastAPI services on Railway and Render with cloud PostgreSQL.

DocMind – RAG-based Document Q&A System | Python, LangChain, FAISS, HuggingFace, Ollama, Streamlit

- Built an end-to-end Retrieval-Augmented Generation (RAG) pipeline for semantic question answering over uploaded PDF documents.
- Implemented PDF ingestion, text chunking, and vector indexing using FAISS with HuggingFace embeddings for efficient semantic retrieval.
- Integrated Llama 3.1:8B locally using Ollama for offline inference and source-based response generation.

Cat Emotion Detection (Infosys Springboard Intern) | Python, OpenCV, CNN, TensorFlow

- Developed an AI-based system to detect cat emotions using image classification techniques.
- Built and trained a Convolutional Neural Network (CNN) model on labeled cat facial expression datasets.
- Used OpenCV for image preprocessing and feature extraction to improve model accuracy.

Smart Water Leakage Detection Using Machine Learning | Python, Scikit-learn, Pandas

- Developed a machine learning model for early water leakage detection using sensor anomaly analysis.
- Implemented the system using Scikit-learn and Pandas for prediction.

Achievements & Certifications

- LEAP Program Winner – IITM Pravartak** – Built an Arduino-based smart heater with auto control.
- AI Agent Hackathon** – Developed an NLP-based Q&A assistant.
- TechImpact – GDG Hackathon** – Built a solution in a team-based hackathon.
- AWS ML Foundations** – Learned core ML concepts and AWS basics.
- Generative AI Prompt Engineering** – Learned GENAI concepts and LLM-based applications.