

VETRI KALANJIYAM

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PROFESSIONAL SUMMARY

Computer Science and Design undergraduate specializing in AI/ML, backend development, and applied software engineering. Winner of the ChatGPT Codex Hackathon 2026 and Top 100 finalist among 52,000+ developers in the Meta PyTorch OpenEnv Hackathon. Experienced in designing AI-powered applications, autonomous agent workflows, RAG pipelines, reinforcement-learning environments, automation systems, and full-stack products using Python, JavaScript/TypeScript, and modern AI frameworks.

TECHNICAL SKILLS

Languages: Python, Java, C++, JavaScript/TypeScript, SQL, HTML, CSS

Backend Development: Node.js, Express.js, FastAPI, REST APIs, Microservices, Next.js

AI & Machine Learning: PyTorch, TensorFlow, Scikit-learn, Pandas, NumPy, CNNs, Reinforcement Learning, GRPO

AI Engineering: LLMs, RAG, FAISS, Hugging Face, LangChain, Vector Search, Prompt Engineering, AI Agents, Groq, Ollama

Databases: MySQL, MongoDB, PostgreSQL, Supabase

Cloud & DevOps: AWS, Azure, Docker, Git, GitHub, Linux

Tools & Platforms: React, Streamlit, n8n, Unreal Engine 5, System Design

EDUCATION

B.Tech., Computer Science and Design

Sept 2024 - Present

SNS College of Engineering, Coimbatore, India | CGPA: 8.4 / 10

- Relevant Coursework: Data Structures & Algorithms, OOP, Database Management Systems, Operating Systems, Artificial Intelligence, Machine Learning

EXPERIENCE

Dual-Track Intern - Software Development & Artificial Intelligence

2026

SNS iHub, Coimbatore

- Completed a dual-track internship spanning full-stack software development and applied AI, delivering projects across both tracks.
- Built full-stack applications using HTML, CSS, JavaScript, React, Node.js, and MongoDB.
- Developed Retrieval-Augmented Generation systems, rule-based chatbot workflows, and AI-driven product prototypes.
- Contributed to architecture, technical documentation, demonstrations, and agentic workflows involving orchestration, validation, and autonomous decision support.

AI & Data Analytics Intern

July 2025 - August 2025

AICTE | Shell India | Edunet Foundation

- Processed and analyzed 10,000+ energy-sector records, improving data processing efficiency by 15%.
- Developed predictive analytics models achieving 90% accuracy using machine-learning techniques.
- Collaborated within a four-member engineering team to deliver AI-driven analytical solutions.

Web Development Intern

July 2025 - August 2025

VaultofCodes (Remote)

- Refactored legacy application modules, reducing technical debt by 10%.
- Fixed 15+ production issues across frontend and backend systems.
- Implemented responsive UI improvements, increasing mobile engagement by 25%.

SELECTED PROJECTS

EETRE - Enterprise Email Triage & Response Environment

Mar 2026 - Apr 2026

Meta PyTorch OpenEnv Hackathon x Scaler Grand Finale - Top 100 of 52,000+ developers

- Built an autonomous email-triage benchmark environment with a four-tier difficulty system and spam/phishing detection.
- Trained a SmartEmailAgentBrain agent on Qwen2.5-0.5B using GRPO (Group Relative Policy Optimization) and deployed it to Hugging Face Spaces.
- Cleared Round 1 of the national hackathon and advanced to the Bangalore Grand Finale.

Research Paper Answer Bot - RAG Capstone

Analytics Vidhya GenAI Pinnacle Program

- Built an end-to-end Retrieval-Augmented Generation pipeline using FAISS for vector search and Groq as the LLM backend.
- Compared multiple embedding and retrieval strategies to optimize answer relevance and latency.

Conversational AI for Crime Database

Karnataka State Police Hackathon 2026

- Designed a deployment architecture on Catalyst by Zoho with role-based access control and ML-driven case intelligence.

AI Founder-Story Reel Generator

n8n Automation Pipeline

- Built an end-to-end n8n workflow generating AI-powered founder story reels using Groq's Llama models, Google Sheets, Docs, and Gmail.

Plant Disease Detection using Deep Learning

- Built a CNN achieving 95% prediction accuracy on plant-disease classification.
- Developed an interactive Streamlit application for real-time disease prediction, with inference under two seconds per image.

EV Adoption Forecasting Dashboard

- Analyzed 50,000+ vehicle-registration records spanning seven years to build ML forecasting models achieving 85% accuracy.
- Designed interactive dashboards that reduced stakeholder analysis time by 40%.

ACHIEVEMENTS

- Winner - ChatGPT Codex Hackathon 2026; selected among the Top 5 builders and awarded 1 year of Codex Pro access.
- Top 100 Finalist - Meta PyTorch OpenEnv Hackathon, from 52,000+ developers.
- Built multiple production-oriented AI applications, RAG pipelines, autonomous agent workflows, and backend systems.
- Unreal Engine 5 developer with experience building game environments.

CERTIFICATIONS

- Generative AI Fundamentals - Databricks
- AWS APAC Solutions Architecture Job Simulation - Forage
- AICTE Skills4Future - AI & Data Analytics
- Agile & Scrum Fundamentals

ADDITIONAL INFORMATION

Languages: English, Tamil, German

Areas of Interest: Artificial Intelligence, AI Agents, Backend Engineering, Distributed Systems, Machine Learning, Reinforcement Learning, Cloud Computing, System Design