

Vaishanth Pranav C S

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EDUCATION

Vellore Institute of Technology, Chennai

B.Tech in Computer Science and Engineering (AI and ML)

2024 - 2028

CGPA: 8.70/10

TECHNICAL SKILLS

Languages	Python, Java, C, C++, JavaScript, TypeScript, SQL
AI and ML	PyTorch, ResNet18, CBAM, Grad-CAM, scikit-learn, Sentence-Transformers, FAISS
Web	React, Tailwind CSS, HTML, CSS, MapLibre GL
Backend	Node.js, Express, PostgreSQL, Prisma, Socket.IO
Tools	Git, Streamlit, Ollama

PROJECTS

EchoAssist | Respiratory Sound Analysis

Team project | 2026

Python, PyTorch, NumPy, SciPy, JavaScript

[GitLab](#)

- Adapted ResNet18 with CBAM attention and dual prediction heads to classify normal, crackle, wheeze, and combined respiratory sounds.
- Built 16 kHz audio preprocessing and Log-Mel spectrograms; trained and compared models using focal loss and weighted sampling.
- Evaluated on **2,756 ICBHI test cycles** from **49 patients**: **60.56% accuracy** and **44.32% macro F1**; analyzed confusion matrices and prediction errors.
- Built audio upload, waveform, spectrogram, prediction, and heatmap displays; tested modules and the complete dashboard workflow.

ResQNet | Emergency Coordination Platform

Team project | 2026

Node.js, Express, PostgreSQL, Prisma, Socket.IO, MapLibre GL

[GitLab](#)

- Developed APIs, PostgreSQL schemas, and Prisma queries with authentication and role permissions; implemented multilingual extraction, incident classification, and priority scoring.
- Built responder matching and transactional assignments to handle duplicate dispatch attempts.
- Integrated MapLibre maps, geolocation, routing, and live incident and responder updates via Socket.IO.

Multi-Agent LLM Misinformation Detection System

Python, Ollama, Streamlit, Sentence-Transformers, FAISS, scikit-learn

- Built claim extraction, web evidence retrieval, and Pro, Skeptic, and Judge agent workflows; ranked evidence using semantic similarity and source credibility.
- Implemented FAISS claim memory and DBSCAN campaign detection with temporal analysis; delivered Streamlit dashboards and batch CSV workflows.

ACHIEVEMENTS

Won 1st place with a team at **Parallax 2026 (EchoAssist)** and **Find-a-thon 2026 (ResQNet)**. Secured 1st place in Code in the Dark and 3rd place in Code and Conquer; placed 7th at Neural-DAO Hackathon 2024 and 6th at Hack-a-Throne Hackathon.

EXPERIENCE

Sports Club VITC

VIT Chennai

Outreach Lead

Jul 2026 - Present

Crew Member

Jul 2025 - Jun 2026

- Progressed from Crew Member to Outreach Lead, taking on student outreach and club leadership responsibilities.