

Thanmay M Shetty

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Summary

AI/ML engineer and full-stack developer specializing in LLMs, RAG systems, agentic AI, and scalable web applications. Proven national-level hackathon performer with experience building end-to-end solutions under tight 24-hour constraints. Strong in Python ML ecosystem, Next.js, and complex data workflows (including NETCDF/ARGO), with a reputation as the technical frontman for communication, pitching, and leading teams.

Education

B.E. in Artificial Intelligence & Machine Learning
BMS Institute of Technology and Management (BMSIT), Bengaluru

Expected 2027

Technical Skills

- **Languages:** Python, JavaScript, C, Java
- **AI/ML:** Transformers, RAG systems, reinforcement learning, agentic AI, multimodal ML, model training & evaluation
- **Frameworks:** PyTorch, TensorFlow, LangChain, FastAPI, OpenAI/LLM APIs
- **Full-Stack:** Next.js, React, Node.js, REST APIs, Tailwind CSS, ShadCN UI
- **DevOps & Tools:** Docker, Git, GitHub, CI/CD
- **Specialized:** NETCDF/ARGO marine data processing, computer vision (OpenCV), camera-based automation

Project Experience

InterviewPilot — AI Interview Copilot (Flagship Project)

Python, Next.js, LLMs, RAG

- Built an AI-driven interview assistant capable of simulating technical interviews, analyzing responses, and providing structured feedback.
- Implemented RAG pipelines for domain-specific question generation, resume-aware scoring, and personalized preparation plans.
- Designed and integrated backend ML services with a Next.js frontend, focusing on clean UX, scalability, and extensible agent workflows.

BioBloom Ecosystem — 1st Place, RNSIT National Hackathon

Python, RAG, Agentic AI, Blockchain

- Designed the **Biomass Optimizer**, an agentic AI pipeline that converts raw farm and biomass data into actionable usage recommendations.
- Built **AgriKami**, a RAG-based crop planning agent leveraging soil, crop rotation, and climatic knowledge bases.
- Contributed to **AgriSafe**, a blockchain-backed supply chain layer providing traceability from farmer to consumer.
- Recognized for innovation, robustness, and real-world scalability in modern agriculture workflows.

ARGO NETCDF Explorer — Scientific Data RAG System

Python, NETCDF, LLMs

- Engineered an LLM-powered assistant to interpret complex ARGO NETCDF oceanographic files via natural-language queries.
- Implemented chunking, metadata extraction, and embedding-based retrieval tailored to multi-dimensional scientific data.
- Simplified access to marine datasets for students and researchers by abstracting low-level file structures behind a conversational interface.

Smart Attendance System — Computer Vision Automation

Python, OpenCV, DL

- Developed a camera-based, real-time face recognition attendance solution for classroom environments.
- Designed a training and inference pipeline using deep learning embeddings optimized for accuracy and latency.

- Built a prototype suitable for campus deployment with automated logging and minimal manual intervention.

Additional GitHub Work

github.com/FrostyZ07

- Reinforcement learning training pipelines, AI dashboards, agent utilities, and automation scripts.
- Full-stack experiments combining Next.js frontends with Python ML backends and containerized deployments.

Achievements

- **1st Place** — RNSIT National Hackathon (24-hour AI/ML hackathon)
- **3rd Place** — KSEEM National Level Hackathon
- **2nd Place** — Build And Conquer Department Level Hackathon
- **3rd Place** — NeuroNova Department Level Hackathon
- Multiple high-rank finishes in AI/ML-focused hackathons with projects spanning agri-tech, health-tech, and full-stack AI solutions.

Leadership & Extracurricular

Treasurer — IEEE Computational Intelligence Society (CIS)

- Managed society finances, coordinated AI/ML-centric events and workshops, and worked closely with faculty and student teams.
- Acted as the technical frontman for presentations, idea pitching, and explaining complex AI systems in simple terms.

Soft Skills

Technical communication • Team leadership • Problem solving • Rapid learning • Collaborative mindset • Public speaking & presentations

Languages

English, Kannada, Hindi (Fluent) • Tulu (Native)