

Vinay Pokharkar

Maharashtra, India - 400709 | pokharkarvinay2005@gmail.com | +91 7208370792 | vinaypokharkar.dev
linkedin.com/in/vinaypokharkar | github.com/vinaypokharkar

Summary

- AI/ML engineer building production full-stack systems — LLM applications, RAG pipelines, and agentic workflows on FastAPI, Next.js, and React Native. Delivered for a paying freelance client, a remote internship, and a 5-person hackathon team that won *Most Product Readiness* at Hackcelestial 2.0 (400+ participants). Final-year B.E. in Artificial Intelligence & Machine Learning.

Education

SIES Graduate School of Technology, Nerul, BE in Artificial Intelligence and Machine Learning 2022 – 2026

- GPA: 7.63/10.00
- **Coursework:** Computer Architecture, Comparison of Learning Algorithms, Machine Learning, Image and Video Processing, Deep Learning, Cloud Computing

Technical Skills

Languages: Python, TypeScript, JavaScript, SQL

AI/ML: LLMs (Gemini, Ollama), RAG, prompt engineering, vector databases (Pinecone), TensorFlow, Hugging Face, Sarvam.ai, n8n

Backend: FastAPI, Node.js, Express, Flask, REST APIs, JWT authentication, Docker

Frontend & Mobile: Next.js, React, React Native, Tailwind CSS, Streamlit

Databases: PostgreSQL, MongoDB, MySQL, Supabase

Cloud & DevOps: AWS, Vercel, Git, GitHub, GitLab, CI/CD

Experience

Web Developer Intern, Pioneer Machines & Automation Pvt. Ltd. – Remote June 2025 – September 2025

- Owned frontend and backend API development for an internal web platform, building React UI components and Express REST endpoints backed by PostgreSQL under a feature-based modular architecture.
- Designed JWT-based authentication and role-based access control (RBAC) across admin and standard-user tiers, securing protected API routes.
- Shipped features across schema, API, and UI layers, reviewing and merging PRs via Git throughout the 4-month remote internship.

Certifications

- **Perform Foundational Data, ML, and AI Tasks in Google Cloud** – Google, 2023
- **Supervised Machine Learning: Regression and Classification** – Stanford University (Andrew Ng, DeepLearning.AI), 2024
- **AWS Academy Graduate – AWS Academy Cloud Foundations** – Amazon Web Services, 2025

Projects

CodeMotion – Text-to-animation AI platform Github

- Engineered a full-stack text-to-animation LLM application that converts natural-language prompts into Manim-rendered math videos across 3 user tiers (10s, 30s, and 60s outputs), using Gemini for prompt-to-Manim Python script generation.
- Isolated untrusted, model-generated Python inside a Dockerized sandbox to contain execution; integrated a

Next.js chat UI, FastAPI orchestration layer, and Supabase for authentication and video storage.

SeaGuard – AI mobile assistant for fishermen (Hackcelestial 2.0 winner) Github

- Co-led a 5-person team to ship a launch-ready React Native mobile assistant targeting India's coastal fishing population, featuring TensorFlow-based Potential Fishing Zone (PFZ) detection, SOS alerts, GPS navigation, catch logging, trip planning, and live weather.
- Built the FastAPI + Supabase backend with Sarvam.ai-powered multilingual voice support and LLM-driven assistance; completed full-feature delivery and queued the app for public store submission. Awarded *Most Product Readiness* at Hackcelestial 2.0 (400+ participants).

AutoPharmX – Cancer drug-efficacy prediction Github

- Built an ML system predicting cancer drug efficacy (IC50 values), spanning data preprocessing, feature engineering, model training, and evaluation in Python.
- Deployed the trained model as a Dockerized FastAPI inference service behind an interactive Streamlit UI, letting researchers query predictions on new compound inputs.

Reddit Insight Automator – LLM-driven insight pipeline Github

- Built an automated insights pipeline using n8n, a locally hosted Ollama LLM, and the Slack API – scrapes Reddit discussions, summarizes unstructured text, and delivers digests to Slack on a scheduled cadence. Personal project exploring agentic workflow orchestration and self-hosted LLM deployment.

Finsee – Voice-first banking for visually impaired users Github

- Built a fully voice-driven React Native mobile app enabling visually impaired users to perform screen-free digital transactions; owned voice state management, speech recognition integration, and secure API orchestration from UI down to the API layer.

IIMSC – Multilingual recruitment platform (*Freelance*) Github

- Delivered a production multilingual recruitment platform for IIMSC (live at ii-msc.com) as a paid freelance engagement; built separate employer and candidate portals in Next.js + Tailwind CSS with i18n across 4 languages, industry-specific landing pages, and smooth animations, deployed to client-managed cPanel infrastructure.

Open Source

Impeccable (23k+ GitHub stars) – Design skill library for AI coding harnesses PR #120

- Contributed Qoder as a first-class harness target (13th provider, alongside Cursor, Claude Code, Codex, Copilot) – additive registry, transformer, and CLI-detection entries plus a generated skill bundle and docs. Merged into pbakaus/impeccable (April 2026).

Honours and Awards

- **Most Product Readiness Award**, Hackcelestial 2.0, PCOE (Sept 2025) – selected from 400+ participants for *SeaGuard*.

Positions of Responsibility

Senior Editor & Media Head, SIESGST Media Team 2025 – 2026

- Lead the institute's volunteer editorial team, directing production of video coverage, promotional graphics, and social content for college events and campus outreach.