

OM KARANDE

Pune, Maharashtra

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EDUCATION

Savitribai Phule Pune University

B.E. in Computer Engineering — CGPA: 8.71/10

2022 – 2026

Pune, Maharashtra

Projects

GingerPaw | On-Device Speech AI & Multi-Agent Cockpit (Source) 🔗

- Built a push-to-talk dictation app with a **fully on-device AI pipeline** (local Whisper **STT** → Qwen2.5-0.5B cleanup → text injection), tuned via **ChatML prompting** and repeat-penalty sampling; **no data leaves the machine**.
- Engineered a **multi-agent cockpit** embedding coding-agent CLIs (Claude Code, Codex, Gemini) as live **ConPTY** terminals in WebView2 + xterm.js, each isolated in its own **git worktree**.
- Added a local **TTS** layer with a lip-synced overlay wired into agent lifecycle events; validated across a **163-test** suite and shipped as a Windows installer.

Get Place Go | AI Travel Planner — TypeScript, PostgreSQL + pgvector, Supabase (Live | Source) 🔗

- Built an LLM-powered itinerary generator on a **self-hosted Supabase** stack — PostgreSQL with **pgvector**, edge functions, row-level security.
- Designed the place-embedding schema and natural-language search service; deployed frontend and edge functions independently.

Tool-Calling LLM Agent | Python, Gemini Function Calling (Source) 🔗

- Implemented an **agentic plan–act–observe loop** (up to 20 iterations) in which the LLM selects and invokes tools from declared function schemas until the task completes.
- Exposed four tools — directory listing, file read, file write, sandboxed Python execution — with working-directory injection constraining the agent's filesystem access.
- Managed multi-turn message history, tool-result feedback into context, and per-call token accounting.

EXPERIENCE

Full Stack Intern

Eco Nourish Private Limited

Aug 2025 – Nov 2025

Remote

- Developed and maintained an e-commerce platform for organic food products; built responsive frontend components and backend API integrations for catalog and order-management flows.

Web Development Intern

Elite Softwares

Dec 2024 – Jan 2025

Remote

- Built a full-stack e-commerce app (React, Node.js, Express, MongoDB) covering REST APIs, authentication, and payment integration.

Backend Systems & Other Projects 🔗

- **Distributed Rate Limiter** — Redis sliding-window rate limiter with role-based quotas and HTTP rate-limit headers.
- **Idempotent API** — Retry-safe API using idempotency keys, distributed locks and in-flight request tracking.
- **Job Application AI Agent** — Human-in-the-loop agent matching job posts to profiles and drafting tailored applications.
- **Sahay** — AI-powered resume scoring and job discovery platform orchestrating Python NLP workflows.
- **ChatApp** — Real-time WebSocket chat with authentication, media sharing and separate frontend/backend deployment.

SKILLS

Languages: Python, JavaScript, TypeScript, C++, SQL

AI / ML: LLM tool calling & function schemas, agentic loops, embeddings & vector search (pgvector), local model serving (Whisper, Qwen), NLP fundamentals

Backend: FastAPI, Node.js, Express, GraphQL, REST, WebSockets, rate limiting, idempotency, distributed locking, caching

Data & Infra: MongoDB, PostgreSQL, Redis, pgvector, Prisma, Linux, Docker, Git

Coursework: AI, DSA, OS, DBMS, OOP, Network Security

ACHIEVEMENTS

- 2nd place, HackMatrix 2025 Hackathon (100+ participants). Solved 250+ problems on LeetCode.
- Certifications: Complete Web Development (Udemy), Introduction to AI (LinkedIn), Backend Fundamentals.