

RAMANUJ LADDA

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ABOUT ME

4th-year Computer Science Engineering student at COEP, specializing in AI Systems, Software Architecture, and Automation Engineering. Architected and built production-ready platforms across analytics, education, mental health, and automation. Strong focus on end-to-end system design, multi-agent AI, backend engineering, and real-world product execution. Enthusiastic learner with hands-on experience deploying solutions used by businesses and consumers.

TECHNICAL SKILLS

- Languages: Python, Java, C, SQL, JavaScript, TypeScript
- Backend: FastAPI, Flask, Node.js, PostgreSQL, MySQL, Docker
- AI/ML: Generative AI, LangChain, RAG, Vector Databases, Multi-Agent AI
- Frontend: React, Tailwind, Vite
- Tools: Git, Github, VS Code, n8n, Codex, OpenCode
- Domains: AI Agents, AI Systems, Automation, Software Architecture, Full Stack Developer
- Deployment: GCP, Docker, Caddy, Bare Machines

EXPERIENCE

AMRUT MAHARASHTRA | FULL STACK ENGINEER

AUG 2025 - TILL DATE

- Shipped Manasmitra, a 24/7 AI-powered mental wellness platform serving 400+ users in Maharashtra, featuring crisis-aware chat, voice sessions, and self-reflection pathways.
- Integrated Gemini Live API for low-latency audio sessions, Cloudflare R2 audio streaming, and an admin dashboard with automated therapist verification.

NEURAL STREAM AUTOMATIONS | INTERN

JUNE 2025 - JULY 2025

- Automated document verification across 33+ government schemes, replacing a fully manual review process.
- Built an agent pipeline to automatically download applicant PDFs, extract text, and validate extracted data against official government records.
- Implemented approval, rejection, and manual intervention logic based on data consistency and eligibility rules.
- Reduced verification workload and processing time by 95%, allowing staff to focus on critical cases.

GURUJIWORLD PRIVATE LIMITED | AI ENGINEER INTERN

MAR 2025 - JUNE 2025

- Built AI automation systems reducing teacher workload by up to 95%, across evaluation, lesson plans, content, and OCR pipelines.
- Developed and integrated microservices powering student tools (flashcards, mind maps, mnemonics, writing assistants).
- Worked in Agile sprints, followed industry best software practices, and collaborated with cross-functional teams to deliver scalable, production-ready features for both students and teachers.
- Gained strong hands-on experience in system design, documentation, and end-to-end product engineering.

RSQUARE DATAVISION PRIVATE LIMITED | INTERN

OCT 2024 - MAR 2025

- Built a cross-platform desktop tool for MySQL/PostgreSQL that converts natural language into SQL and delivers instant tables and insights.
- Designed a modular backend for easy connector expansion and faster analytics workflows.
- Reduced manual SQL effort and enabled non-technical users to explore data independently.

EDUCATION

COEP TECH UNIVERSITY

BTech - Computer Science CGPA - 8.50, CET - 99.80%ile

2023 - 2027

SANJAY GHODAWAT UNIVERSITY

High School

2021 - 2023

PROJECTS

1) ANALYTAI — AI ANALYST FOR LIVE BUSINESS DATA

analytai.in

Built a SEO ready production SaaS platform where business teams ask plain-English questions about their live data and get instant answers as charts, tables, and metrics - actively used by 10+ organizations and businesses in production.

- Architected a multi-agent system where every user question is routed through specialized sub-agents, delivering live answers streamed in real time as charts, tables, and metrics — backed by a 3-tier agentic memory system.
- Built a semantic catalog engine that automatically maps every table and column in a connected database to its business meaning using AI agents equipped with schema tools, vector search, and sample data introspection — enabling accurate answers across databases with 1000+ tables with zero manual onboarding.
- Built production features including live data connectors 10+ (Tally ERP, PostgreSQL, MySQL, CSV/Excel, private VPN access), cross-company project groups for multi-database querying upto 5 different databases, and an artifact-to-dashboard system that turns AI answers into scheduled recurring reports.
- Replaced traditional BI tools, analyst queues, and manual reporting workflows by reducing average time-to-answer from 6-8 hours to under 60 seconds — eliminating the need for SQL knowledge, dashboard pre-builds, or spreadsheet exports for day-to-day business decisions.
- Built with LangGraph, LangChain, Agents, Vector Embeddings, Qdrant, FastAPI, PostgreSQL, React, TypeScript, Docker

2) COEP CAS — FACULTY CAREER ADVANCEMENT SCHEME PLATFORM COEP TECHNOLOGICAL UNIVERSITY

Sole engineer on a government-commissioned platform replacing 12+ years of manual faculty promotion workflows at COEP Technological University live in production, serving 200+ users.

cas.coeptech.ac.in

- Solo-engineered, designed and deployed a 5-role institutional review workflow (Faculty → HOD → Dean → Registrar → Superadmin).
- Digitized a 100+ year manual process cutting faculty submission time from 3–4 weeks of physical paperwork to under 2 hours online, with final statistics formally submitted to the Maharashtra State Government.
- Serves 400+ active applications from 200+ users in live production, reducing administrative processing time by ~70% across the full promotion cycle.
- Handles 200 GB+ of documents with daily automated backups to Cloudflare R2, ensuring zero data loss.
- Built with Hono, Bun, React, TypeScript, PostgreSQL, Drizzle ORM, Docker, TanStack, Caddy

3) MANASMITRA — AI MENTAL WELLNESS PLATFORM AMRUT MAHARASHTRA INITIATIVE

A 24/7 personalized AI companion delivering mental health support to students and individuals across Maharashtra, built under the AMRUT Maharashtra government initiative.

manasmitra.org

- Shipped a 24/7 AI mental wellness platform for 400+ production users featuring crisis-aware conversations, voice sessions, text chat, self-reflection journeys, mental health assessments, and therapist discovery — all under a single unified product.
- Powered by Gemini with agentic memory via onboarding-injected system prompts, a parallel safety triage agent, and Gemini Live native audio-to-audio voice sessions.
- Engineered 50-question Duolingo-style self-reflection paths, assessments with severity banding, curated wellness audio via Cloudflare R2 signed streaming, and a live mental health events platform.
- Built a full admin intelligence layer — therapist verification pipeline, feedback ticketing, and assessment builder with scoring band configuration across the entire platform.
- Built with Gemini API, LangChain, LangGraph, Gemini Live API, FastAPI, PostgreSQL, React, Docker, Caddy, Cloudflare R2

4) TRYON — AI-POWERED MULTI-CATEGORY VIRTUAL TRY-ON PLATFORM

tryon.byvent.com

- Built and deployed an AI-powered virtual try-on SaaS platform that enables users to instantly visualize clothes, sarees, jewellery, and accessories on their own photos — currently active in production with 2 e-commerce clients, achieving a 25% average lift in user conversion.
- Engineered a batch-generation system allowing users to process and render up to 6 different garment or fabric styles concurrently in parallel.
- Designed an interactive drag-to-reveal comparison slider for seamless, side-by-side visual comparisons of the generated outfits.
- Built with: React 19, Hono, Bun, Cloudflare Workers/D1/R2, Better Auth, Drizzle ORM, TanStack.