RIYANSHI TOMAR

Delhi, India | [redacted] | [redacted] | LinkedIn | GitHub | Portfolio

SUMMARY

AI Engineer and Data Science undergraduate at IIT Madras with hands-on production experience shipping AI/ML systems end to end — LLM pipelines, RAG, agentic workflows, computer-vision automation, and ML classification. At PhysicsWallah, built a call-intelligence platform that delivered a 13% average conversion uplift (peak 32%) and an autonomous CCTV camera-audit agent that eliminated a ~₹50K/month manual resource. Comfortable across Python, LangChain, vector databases, computer vision, and full-stack deployment (React, FastAPI, AWS, Docker).

TECHNICAL SKILLS

AI/ML: LLMs, RAG, Agentic AI, Computer Vision (YOLO), LangChain, Multi-Agent Systems, Prompt Engineering, Scikit-learn, Pandas, NumPy

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

Backend & APIs: FastAPI, Flask, Node.js, Express, REST APIs

Frontend: React, Next.js, Tailwind CSS

Databases: MongoDB, PostgreSQL, Vector DBs (Pinecone, ChromaDB), Supabase

DevOps & Cloud: Docker, AWS (EC2, S3), Git, GitHub Actions, Vercel

EXPERIENCE

AI & Automation Intern, Central Team — PhysicsWallah
May 2026 – Present

Noida

- Designed and built an LLM-based call-intelligence pipeline — transcribing counsellor calls and applying a downstream ML classifier to identify student personas, objections, and high-impact interventions — that delivered a 13% average conversion uplift in Phase 1, with the top-performing counsellor achieving a 32% uplift.
- Scaled the system from proof-of-concept to ~70 counsellors across the Government Exam business, later extended to additional categories; translated model output into talking points, objection handling, and follow-up timing via an internal web app.
- Built an autonomous classroom CCTV camera-audit agent (Computer Vision, YOLO, LLM) that audits footage end to end — engagement, attendance, teaching duration, lecture coverage, uniform compliance — with no human in the loop, replacing a ~₹50K/month manual audit resource.
- Developed an academic operations portal for PW SuperClass integrating course planning, lecture scheduling, faculty allocation, teacher payouts, and classroom-audit reports into a unified internal platform.
- Owned initiatives end to end — problem scoping, data sourcing, model/prompt design, evaluation, backend integration, and deployment — working directly with operational stakeholders.
- Automated the mail tracker system and built additional LLM integrations, cutting manual follow-up effort across counselling and academic operations.
- Building a RAG-based Adaptive Question Generator that pulls previous-year questions from PW's QBG database to generate topic- and difficulty-adaptive DPP and mock-test questions for SSC CGL and other govt exams.

Generative AI Intern — GrowthSchool
Feb 2026 – Apr 2026

Bengaluru

- Built backend services integrating LLM APIs into internal tools, designing modular pipelines that automated repetitive workflows.
- Shipped production features end to end, collaborating on API design, data flow, and deployment infrastructure.

PROJECTS

AI Resume Analyzer — Full-Stack ATS & Feedback Tool | *Python, FastAPI, React, LLMs*

- Full-stack app that parses resumes against job descriptions, returning ATS-style feedback, keyword matches, and skill-gap suggestions via LLM-driven scoring.

RAG-Based AI Assistant | *Python, Vector DBs, LLMs*

- Built a RAG system with vector database integration; tuned chunking, embedding, and retrieval to measurably reduce hallucinations.

ResearchMind — Multi-Agent Research Pipeline | *Python, LangChain, Mistral AI, Streamlit*

- Built a four-agent pipeline (search → scrape → write → critique) automating end-to-end research report generation, deployed via Streamlit.

AI Video & Audio Analyser | *Python, Streamlit, LLMs, RAG*

- Built a media intelligence tool transcribing English/Hinglish audio/video, auto-generating summaries and powering RAG-based conversational search.

EDUCATION

Indian Institute of Technology (IIT) Madras
Expected Sep 2028

B.S. Data Science and Artificial Intelligence — CGPA: 8.2/10

PW Institute of Innovation, Bengaluru
Expected Sep 2028

B.S. Computer Science — CGPA: 8.0/10

ACHIEVEMENTS & OPEN SOURCE

- Cleared HENNGE Backend Recursion Challenge, implementing authentication using RFC 6238 TOTP with HMAC-SHA-512 under zero-global/no-loop constraints.
- Contributor at Social Winter of Code (SWOC) and GirlScript Summer of Code (GSSOC); merged PRs across frontend and full-stack projects (GitHub Pull Shark x2).
- Club Lead, Open Source Club (2025–2026) — conducted onboarding sessions and campus PR-review workshops; active member of IIT Madras Coding Club.