KARTIK THAKUR

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EDUCATION

Pimpri Chinchwad College of Engineering (PCCOE), Pune — B.Tech. (Computer Engineering), PCU 2023 – Present
Relevant Coursework: Data Structures, Algorithms, Database Management Systems, Artificial Intelligence, Object-Oriented Programming

TECHNICAL SKILLS

Languages: Python, C++, JavaScript (basic), SQL
Frameworks: React.js, Tailwind CSS, Streamlit, Pandas, Scikit-learn
AI / GenAI: RAG Pipelines, ChromaDB, LLM APIs, Prompt Engineering, RAGAS Evaluation LLM Application Development
Backend & APIs: FastAPI, Pydantic, REST API Design, sentence-transformers
Automation: REST API Integration, Workflow Automation, n8n
DevOps & Testing: Docker, GitHub Actions (CI), pytest, Render, Vercel, Hugging Face Spaces
Databases: MySQL, SQL, ChromaDB

EXPERIENCE

AI Data Analytics Intern – InAmigos Foundation (IAF) Remote | June – July 2026

- Analyzed NGO operational datasets using Python (Pandas) to identify volunteer engagement patterns and donor retention trends.
- Researched and documented AI automation opportunities for nonprofit workflows: content scheduling, donor segmentation, and grant writing pipelines.
- Structured a dataset of 22+ student volunteer opportunities across India; cleaned and categorized records for searchability and downstream reporting.

Data Science Intern – Axiomen Tech Solutions Hybrid | July - October 2026

- Cleaned and normalized industrial time-series sensor data from OSI soft PI System for downstream analytics.
- Built monitoring visualizations using Python (Matplotlib, Seaborn) to track operational KPIs across manufacturing workflows.
- Prototyped a regression model to detect equipment anomalies from sensor readings; evaluated performance using MAE and RMSE metrics.

PROJECTS

RAG API for YouTube Videos | *FastAPI, ChromaDB, Groq API, sentence-transformers, Docker, RAGAS* | Github Link

- Built a full RAG pipeline that answers questions about any YouTube video: ingests transcripts, chunks them (120 words, 20-word overlap), embeds with local sentence-transformers (MiniLM), stores vectors in ChromaDB, and generates grounded, timestamp-cited answers via the Groq LLM API.
- Evaluated retrieval and generation quality with a RAGAS harness (Gemini as judge), achieving 0.95 Faithfulness; iterated on prompt design to reduce hallucination.
- Shipped with 50 pytest tests running on GitHub Actions CI, containerized with Docker, and deployed live on Render; also exposes /summary and /quiz endpoints built on the same retrieval pipeline.

AI Resume & Internship Assistant | *React, Tailwind CSS, Groq API, Prompt Engineering, React Router, Vite, PDF Parsing* | Live Demo

- Built a multi-page career tool that parses uploaded resumes (PDF/DOCX/image) and uses the Groq LLM API to generate interview questions, score job-description alignment, and optimize LinkedIn profiles.
- Engineered structured prompt pipelines with JSON output parsing for consistent, schema-validated AI responses across all features.
- Implemented React Router for multi-view navigation and Vite for optimized builds.

AI Playground | *React, Vite, TypeScript, Tailwind CSS, FastAPI, tiktoken* | Live Demo

- Built a full-stack tool for exploring how LLMs process text — an interactive tokenizer visualizer, per-model cost calculator, and context-window explorer.
- Architected two independently deployed services (React/Vite frontend on Vercel, FastAPI backend on Render) communicating over a REST API, with environment-based config for local/production parity.

CERTIFICATIONS

- AWS for Everyone – Udemy | April 2026
- Complete UI/UX Design Course 2026: Figma + Al + Real Project – Udemy | April 2026
- Al Engineer Core Track: LLM Engineering, RAG, QLoRA, Agents – Udemy | (Ongoing)

LEADERSHIP & ACTIVITIES

Visual Media Head – ACM Student Chapter, PCCOE 2025 – Present

- Led digital content and engagement strategy for technical events; managed cross-functional team workflows and online communication pipelines.