HARESH KATODIYA

AI & ML ENGINEER | FULL-STACK DEVELOPER | AZURE FUNDAMENTALS CERTIFIED

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CAREER SUMMARY

Motivated B.Tech CSE (AI & Machine Learning) student at Marwadi University who builds complete, working products end to end — RAG-based research agents, autonomous lead-generation engines, voice-enabled assistants, machine learning dashboards, and modern web frontends — rather than isolated notebooks. Comfortable across the stack: model training, LLM orchestration, backend services, and polished, animated UI. Eager to apply academic knowledge to real-world challenges through internships, placements, and collaborative projects.

TECHNICAL SKILLS

LANGUAGES	Python, TypeScript, Java, C, C++, SQL, HTML/CSS/JavaScript
AI / ML / DL	Machine Learning, NLP, LLMs, RAG, AI Agents, Vector Databases (ChromaDB), Prompt Engineering, TensorFlow, Scikit-Learn, OpenCV, OpenAI / Gemini / Claude APIs
FRONTEND	React, Next.js, Vite, Tailwind CSS, Streamlit, Three.js, GSAP
BACKEND & AUTOMATION	Flask, SQLAlchemy, Drizzle ORM, Pydantic, APScheduler, n8n, Workflow Automation, Webhooks
APIs	REST APIs, JSON, API Integration, HTTP
DATABASE & TOOLS	MySQL, SQLite, Git, GitHub, pytest, VS Code, Google Colab, Microsoft Azure
CONCEPTS	DSA, OOP, DBMS, Problem Solving, Error Handling, Logging, EDA, Analytic Reporting

PROJECTS

AI Research Agent Python · OpenAI API · ChromaDB · Streamlit · Pydantic [GitHub]

- Autonomous research pipeline: turns one question into multiple search queries, fetches and cleans live web pages, and scores sources for quality with duplicate handling.
- RAG layer chunks and embeds evidence into ChromaDB, retrieves the most relevant passages, and synthesizes a structured, cited report with stated limitations and a confidence level.
- Streamlit UI with local research history and PDF export; modular codebase with a pytest suite and a free DuckDuckGo fallback when a search provider or page fails.

TVB Autonomous Startup Prospecting Engine Python · Gemini · Streamlit · DNS MX [GitHub]

- Venture-intelligence agent built for The Venture Build (TVB) that discovers and qualifies non-US Seed–Series A tech startups ($1M–$5M range) from registries and news desks such as EU-Startups, TechInAsia, and Inc42.
- Gemini evaluates each announcement against TVB's criteria; founder emails are generated and validated through DNS MX checks, with unverified fields intentionally left blank for data integrity.
- Interactive Streamlit dashboard with live trigger controls and CSV export.

JARVIS — Personal AI Assistant React 19 · TypeScript · Vite · Tailwind CSS · Claude API [GitHub]

- Iron Man–inspired, browser-based assistant with voice recognition, text-to-speech replies, a built-in knowledge base, a settings panel, and a futuristic dark UI with smooth animations.
- Companion text agent reads and acts on Gmail through Claude API tool-calling; designed to grow into a full voice-in/voice-out agent with wake-word activation.

AI Internship Readiness Checker Next.js · TypeScript · Drizzle ORM [GitHub]

- AI-powered internship readiness assessment for students and placement teams; full-stack TypeScript app with a database layer managed through Drizzle ORM.

DropWatch — Price-Drop Notification Platform Flask · SQLAlchemy · APScheduler

- Full-stack system that tracks product prices and alerts users on drops, with idempotency logic so duplicate alerts are never sent.
- Flask + SQLAlchemy backend; APScheduler runs recurring price checks. Dark/lime frontend with a live price ticker.

AI Stock Market Predictor Streamlit · LSTM · Random Forest

- Bloomberg Terminal–styled dashboard forecasting stock movement with LSTM and Random Forest models plus technical indicators.
- Automated email and Telegram alerts, plus one-click PDF/Excel report export.

AI Lead Generation Agent Python · n8n · REST APIs · LLM · Google Sheets API

- Automated lead discovery, qualification, scoring, and organization; webhook-based data flow with LLM analysis and Google Sheets output.
- Validation, duplicate detection, retries, and error-notification logic for reliable recurring runs.

Email & Ticket Automation Agent Python · n8n · LLM · Webhooks · Email APIs

- Classifies incoming messages into sales, support, important, and spam; generates structured LLM responses and routes sensitive cases for human approval, with logging and failure handling.

AI-Based Face Detection System Python · OpenCV · Haar Cascade

- Real-time webcam face detection with an improved image classification pipeline using Haar Cascade.

3D Interactive Resume Three.js · GSAP

- Six-scene, fully navigable 3D presentation that turns a traditional resume into an explorable experience.

CareerPilot AI Concept · Prompt & UX Design

- Chatbot concept to guide Indian college students through placement season, with a full system prompt and UI mockup.

Other builds: NEXUS AI enterprise site, forest-conservation storytelling site, house price prediction, hotel menu program (Python), Design & Analysis of Algorithms practicals, and a graph-theory-based smart traffic route optimizer (Marwadi University DMS coursework).

EDUCATION

Marwadi University, Rajkot, Gujarat **2024 – 2028**

B.Tech, Computer Science & Engineering — Artificial Intelligence & Machine Learning

CERTIFICATIONS

- Microsoft Certified: Azure Fundamentals — Verified Professional Credential
- Cisco Certificate
- Database Programming with SQL — GeeksforGeeks
- Linux Essentials Certification

ACHIEVEMENTS

- Solved 100+ coding problems on competitive programming platforms.
- Completed AI & ML certification courses with distinction.
- 10 public repositories on GitHub spanning AI agents, RAG, voice assistants, full-stack web, and algorithm practicals.

RELEVANT COURSEWORK

Data Structures & Algorithms · Machine Learning · Operating Systems · DBMS · Computer Networks

STRENGTHS

Creative Thinking · Technical Curiosity · Team Collaboration · Fast Learning Ability · Adaptability

LANGUAGES

English — Professional · Hindi — Fluent · Gujarati — Native