

BHAVYA VERDIA

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Professional Summary

Final-year B.Tech CSE (AI & Analytics) student with hands-on experience in Machine Learning, Computer Vision, and Generative AI through industrial internship and independent projects. Skilled in building production-grade AI systems including LLM-based agents, RAG pipelines, and Vision AI solutions using Python, FastAPI, LangChain, LangGraph, and Azure OpenAI APIs. Proficient in Java and Data Structures & Algorithms with strong foundations in Object-Oriented Programming and system design.

Education

MIT ADT University <i>B.Tech in Computer Science and Engineering (AI & Analytics)</i>	2022 – 2026 (Expected) <i>Pune, Maharashtra</i>
St. Matthew's Sr. Sec. School <i>HSC, CBSE</i>	2022 <i>Udaipur, Rajasthan</i>
St. Paul's Sr. Sec. School <i>SSC, CBSE</i>	2020 <i>Udaipur, Rajasthan</i>

Experience

Mahindra & Mahindra Ltd. <i>AI Intern, Manufacturing IT</i>	Feb 2026 – May 2026 <i>Pune, Maharashtra</i>
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- Contributed to **Smart Sequencing Digital Twin** for optimizing production flow and improving manufacturing efficiency at scale, including an **LLM-based buffer monitoring agent (LangGraph + XGBoost)** to forecast buffer starvation and overflow across TCF shop blocks with real-time PPC alerts
- Developed a **Vision AI** system using **YOLO** to detect wheel center cap mismatches on multiple variants of Thar SUV
- Implemented color validation using **OpenCV** (LAB color space) and an **Transformer based LLM decision layer (Qwen AI)** to handle edge cases and improve pass/fail accuracy
- Automated quality inspection workflow, achieving **97% detection accuracy** and reducing manual validation effort

Projects

- Ayura AI – AI Powered Health and Wellness Platform** | *Python, FastAPI, LangGraph, ChromaDB, GPT-5.4 mini, React*
- Architected personalized **Gym, Yoga, Diet, Panchakarma, and Home Remedies** plan generation via a **4-tier pipeline** (rule engine, RAG retrieval, LLM reasoning, safety supervisor) with medical contraindication filters
 - Deployed **GPT-5.4 mini** on **Azure AI Foundry** with JSON-mode structured output and tool use for multi-step health profile reasoning, with **Gemini 2.0 Flash** fallback
 - Built **RAG pipeline** with **ChromaDB** over curated Ayurvedic knowledge bases enabling grounded recommendations with drug-herb interaction checking
 - Designed **LangGraph** multi-agent system with 4 specialized agents and **AI health chatbot** with conversational memory and real-time safety supervision
- Placify AI – AI-Powered Placement Prediction & Career Platform** | *React, FastAPI, Scikit-learn, LangChain*
- Developed a full-stack AI platform using **Machine Learning** models to predict job roles, salaries, and placement readiness
 - Built intelligent **RAG pipelines** using **OpenAI, LangChain, and ChromaDB** for personalized career guidance and skill-gap recommendations
 - Implemented **multi-LLM workflows** with **Azure OpenAI** and **Gemini** for ATS resume feedback and AI-generated career insights
 - Engineered a **ReAct-based** career coach agent with persistent memory and autonomous tool-calling, alongside an **adaptive mock interview** system featuring real-time AI evaluation and dynamic follow-up generation

Technical Skills

Programming: Python, Java
CS Fundamentals: DSA, OOP, DBMS
Databases: MySQL, MongoDB, ChromaDB
Backend: FastAPI, Flask, REST APIs
AI & ML: Scikit-learn, PyTorch, YOLO, OpenCV, NLP, Generative AI
LLM & Orchestration: LangChain, LangGraph, RAG, Azure AI Foundry, OpenAI APIs
Tools & Libraries: Git, Docker, Pandas, NumPy, HuggingFace Transformers