Harsh Kumar

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Education

Vellore Institute of Technology　　　　　　　　　　　　　　　　　　　　　　**Sep 2022 – Present**
*B.Tech in Computer Science, **CGPA: 9.14***　　　　　　　　　　　　　　　　　　　　　*Vellore, India*

DAV Hehal Ranchi　　　　　　　　　　　　　　　　　　　　　　　　　　　　**Apr 2021 – Apr 2022**
*Class 12th **Percentage: 89.2%***　　　　　　　　　　　　　　　　　　　　　*Ranchi, Jharkhand*

DAV Hehal Ranchi　　　　　　　　　　　　　　　　　　　　　　　　　　　　**Apr 2019 – Apr 2020**
*Class 10th **Percentage: 96.4%***　　　　　　　　　　　　　　　　　　　　　*Ranchi, Jharkhand*

Relevant Coursework

- Data Structures: 4/5
- Agentic AI: 4/5
- Deep Learning: 4/5
- OOP
- Generative AI
- NLP
- Data Science: 4/5

Technical Skills

Languages: C++, Python, SQL, LangChain, LangGraph
Tools: VS Code, GitHub, Google Colab, Kaggle
AI/ML: TensorFlow, Hugging Face, OpenCV, FAISS

Projects

Agentic Web-Enabled Conversational AI | GPT-4, AutoGen, LangChain, SerpAPI, ChromaDB　　　**June 2025**
- Engineered an autonomous conversational system that uses LLMs to dynamically retrieve and synthesize real-time web data.
- Orchestrated Planner, Search, and Synthesizer agents using MCP protocol; enabled contextual continuity with ChromaDB and SerpAPI.

Chatbot with Retrieval-Augmented Generation (RAG) | LangChain, FAISS, Python　　　　**Jan 2025**
- Built a RAG-powered chatbot with LangChain and Hugging Face that generates contextually accurate multi-turn responses.
- Utilized FAISS for vector search across 100K+ embedded documents, reducing hallucinations and improving factual grounding by 40%.

Real-time Parking Detection | OpenCV, Python, pickle　　　　　　　　　　　　　　**Dec 2024**
- Developed a real-time detection system for identifying vacant parking spots from video feeds with 35% accuracy improvement.
- Used background subtraction, contour detection, and trained on custom data to handle varying lighting and camera perspectives.

Experience

Wipro Ltd. | Bangalore, India　　　　　　　　　　　　　　　　　　　　　　**May – Jul 2025**
Software Development Intern
- Earned certification in **Doxis CSB**, gaining hands-on exposure to enterprise content management (ECM) systems and intelligent document processing.
- Collaborated with engineering teams on designing **Agentic AI workflows**, and completed 4 global certifications related to DOXIS CSB ECM architecture and integration.

Future Intern　　　　　　　　　　　　　　　　　　　　　　　　　　　　**Mar – Apr 2025**
Data Science Intern
- Developed an NLP-based ticket classification system that reduced support team response time by **30%** using LSTM models and GloVe embeddings.
- Conducted geospatial analysis of traffic and accident data to identify high-risk zones, enabling better resource allocation and public safety measures.

Achievements & Leadership

LeetCode　　　　　　　　　　　　　　　　　　　　　　　　　**leetcode.com/u/harshnpng**
DSA Practice
- Solved **300+ problems** covering arrays, trees, graphs, and dynamic programming on LeetCode.

DataWars　　　　　　　　　　　　　　　　　　　　　　**profiles.datawars.io/harshnpng**
Data Preprocessing Projects
- Completed **50+ projects** involving data cleaning, transformation, and feature engineering.

Production Head – Stage Plays　　　　　　　　　　　　　　　　　　　**Oct 2024 – Jan 2025**
IIT Madras & NIT Trichy
- Led stage and logistics for award-winning theatre productions at **Saarang (2nd)** and **Festember (1st)**.
- Received special recognition for production management and coordination.