Harsh Maheshwari

Gujarat, India (Willing to Relocate)

Experience

AI Engineer May 2025 – Present

Lumeo

San Francisco USA

- Engineered end-to-end, **MLOps**-driven AI pipelines from data curation to scalable deployment leveraging emerging paradigms like **Zero shot detection** and **Vision Language models**.
- Designed and deployed advanced computer vision and deep learning models, integrating autonomous **AI agents** for real-time, production-grade performance.

AI Intern

May 2024 - August 2024

Ziguratss LLP

Delhi India

- Developed AI-based solutions for **face recognition and anti-spoofing** in attendance systems using computer vision techniques.
- Built applications for generating descriptive content from images and visualizing paintings on walls using deep learning models.

Skills

Programming Languages: Python, C/C++, SQL, Javascript

Frameworks and Libraries: TensorFlow, PyTorch, Hugging Face, Docker, Langchain, Next.js

Technologies: Computer Vision, NLP, Generative AI, AI Agents, MCP, LLM Finetuning, RAG

Non-Technical: Problem Solving, Decision Making, Strong Communication

Certifications:

- Deep Learning (Top 5%), 87/100 NPTEL IIT ROPAR
- Introduction to Machine Learning (Top 2%), 90/100 NPTEL IIT KGP
- Deep Learning for NLP $\ (\text{Top } 5\%)$, $\ 72/100$ NPTEL IIT KGP
- Machine Learning Specialization Deeplearning.ai ,Coursera
- Data Structures and Algorithms , 75/100 NPTEL IIT KGP
- Data Base Management System (Top 2%), 80/100 NPTEL IIT KGP

Languages Spoken: English (Professional), Gujarati (Native), Hindi (Professional)

Projects

Swasthify | Python, Streamlit, Crew.ai, Langchain, Vision Transformer

Hosted App

- Built a smart health tracker that analyzes daily meals via text or image input to provide calorie breakdown, nutrient insights, and personalized food and exercise recommendations.
- Integrated Vision Transformer and AI agents-based pipeline to automate food recognition and generate real-time, detailed health plans through an interactive user interface.

Voice Cloning System | Python, HiftGAN, WaveGlow

GitHub

- Designed and developed a system capable of generating high-fidelity speech mimicking specific voices.
- Incorporated speaker adaptation methodologies to enhance the naturalness and precision of synthesized voice outputs.

$\textbf{LeetCode Fine-Tuned CodeLLaMA} \mid \textit{HuggingFace} \ , \textit{Transformers}, \textit{LoRA}$

HuggingFace

- Fine-tuned CodeLLaMA 7B Model on curated LeetCode problem-solution pairs to significantly improve competitive programming code generation.
- Achieved higher accuracy and problem coverage compared to base model in real-time coding tests.

- Built an AI-powered data analysis agent allowing users to upload CSV/Excel files and query data in natural language, including generating visuals, charts, and statistical summaries.
- Implemented a secure sandbox execution environment where the agent writes and executes Python code dynamically to produce accurate results.

Education

B.Tech in Artificial Intelligence & Machine Learning

2022 - 2026

Charotar University of Science and Technology CGPA:9.12 (Current)

Changa, Gujarat

Higher Secondary

 $\boldsymbol{2022}$

GSHSEB

Palanpur, Gujarat

Achievements

Research Publication:

- Maheshwari, H., et al. (2024). "Enhancing Human Detection and Counting Efficiency Through Deep Learning: A
 Comprehensive Approach" International Conference on Recent Advances in Artificial Intelligence and
 Computing (ICRAIC 2024).
- Publication: Paper Link

Invited Speaker at IEEE AI Talk — AI Frontiers: Unlocking the Future with RAG, GANs & YOLO

- Delivered a talk on cutting-edge AI advancements including Retrieval-Augmented Generation (RAG), Generative Adversarial Networks (GANs), and YOLO to an audience of 150+ students.
- Invited by IEEE CSPIT SB in collaboration with the AIML Department at CHARUSAT.

Meesho Data Challenge 2024:

 Secured 23rd rank among 196 teams in a national-level hackathon focused on image-based attribute prediction for e-commerce cataloging using ML.

Amazon ML Challenge:

Achieved 64th rank out of 75,000 participants (~20,000 teams) by solving complex NLP and computer vision tasks.

Academic Excellence:

- 2X NPTEL Topper in Machine Learning and Database Management Systems.
- Ranked in the **top 2**% nationwide.

Competitive Programming:

- Solved 750+ LeetCode problems; Max rating: **1841**, with a **500-day streak** badge.

Leetcode

References

• Mr. Devarshi Shah – Founder and CEO, Lumeo

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- Mr. Vijay Bhatt Founder and CEO, Ziguratss LLP Email: hrd@zigguratss.com
- Dr. Nirav Bhatt Head of AIML Department, Charotar University Email: hod.aiml@charusat.ac.in