

# HARSH BHANUSHALI

Mahesana, Gujarat

+91 7572865686 [✉ harshbhanushali.ai@gmail.com](mailto:harshbhanushali.ai@gmail.com) [in linkedin.com/in/harshbhanushali770](https://www.linkedin.com/in/harshbhanushali770)  
[github.com/Harsh772005](https://github.com/Harsh772005) [leetcode.com/u/Harsh.Bhanushali2901/](https://leetcode.com/u/Harsh.Bhanushali2901/)

## Profile Summary

---

### AI/ML Engineer

*Expertise in Machine Learning, Deep Learning, NLP, and Generative AI*

- AI/ML Engineer with hands-on experience in developing and deploying **end-to-end Machine Learning pipelines** for **Computer Vision, NLP, and Generative AI** applications.
- Proficient in **TensorFlow, PyTorch, Keras**, and **Hugging Face Transformers**, with strong Python skills and a solid background in **algorithmic problem-solving**.
- Published research in **ICRAIC 2024**, showcasing innovative AI solutions for real-world applications, including **YOLOv8-based human detection**.
- Skilled in **model deployment (Hugging Face)**, and optimization techniques to build scalable AI systems.
- Passionate about leveraging AI to drive **innovation in automation, content generation, and large-scale AI applications**.

## Education

---

### B.Tech in Artificial Intelligence and Machine Learning

Charotar University of Science and Technology (CHARUSAT)

CGPA: 8.91 (Current)

2022 – 2026

Changa, Gujarat

### Higher Secondary Certificate (H.S.C)

Urban Vidhyalaya

Percentage: 77%(Science) || 70%(Overall)

2020 – 2022

Mahesana, Gujarat

## Skills

---

- Programming Languages:** Python, C/C++, SQL, Dart
- Frameworks and Libraries:** TensorFlow, Keras, Seaborn, Matplotlib, LangChain, Docker, Next.js
- Technologies:** Data Visualization, Machine Learning (ML), Deep Learning (DL), Computer Vision, Natural Language Processing, Transformer Models (BERT, GPT), Transfer Learning, Hyperparameter Tuning, Generative AI, Version Control (Git), Databases (MySQL, MongoDB), Deployment (Docker), Large Language Model Finetuning
- Non-Technical:** Problem-Solving, Strong Communication, Team Collaboration, Critical Thinking
- Languages Spoken:** English (Professional), Gujarati (Native), Hindi (Professional)

## Experience

---

### Pulscribe.ai

AI Engineer Intern

Virginia, United States (Remote)

Oct 2025 – Present

- Working at a healthcare-based startup developing advanced Medical Domain ASR (Automatic Speech Recognition) models to enhance clinical transcription accuracy.
- Contributing to end-to-end audio signal processing pipelines, including noise reduction, segmentation, and model fine-tuning for domain-specific vocabularies.
- Collaborating with cross-functional teams to improve ASR model performance and integrate medical transcription tools into production-ready pipelines.

### Aiginno Pvt. Ltd.

AI/ML Intern

Ahmedabad, India (Remote)

Jul 2025 – Present

- Contributed to the development of **Ginnobot.ai**, an Agentic AI platform, built entirely from scratch using Next.js and integrated with n8n workflows.
- Developed custom n8n automation workflows and integrated them seamlessly into the Next.js web application for dynamic and scalable automation.
- Collaborated on AI product features involving conversational AI, workflow orchestration, and intelligent automation for business use cases.

## Projects

---

### **F5-TTS: Gujarati Text-to-Speech Model** | *F5-TTS, TensorFlow, PyTorch, Gradio* **HuggingFace**

- Fine-tuned the F5-TTS model on Gujarati speech data from IIT Madras, preprocessing and curating datasets for optimal performance.
- Trained the model on Kaggle GPUs for 30-40 hours, achieving high-quality natural speech synthesis.
- Built an interactive Gradio web app for real-time inference and seamless user testing.

### **SnapVid – AI Powered Social Media Content Generator** | *Kling API, Librosa, MoviePy, Python* **GitHub**

- Developed an AI-powered video generation tool using Kling API, Librosa, and MoviePy, enabling automated content creation for social media influencers.
- Implemented beat synchronization through real-time audio analysis, improving visual/audio alignment by 80%.
- Integrated REST API for scalable video processing, supporting 50+ concurrent requests with low latency.
- Reduced processing time by 35% through optimized deep learning inference and parallel processing.

### **VidSense – Personalized Video Recommendation Engine** | *Python, Flask, Machine Learning* **GitHub**

- Designed a video recommendation system using content-based filtering, collaborative filtering, and hybrid models, achieving personalized recommendations.
- Implemented a pipeline for data preprocessing, feature engineering, and evaluation using metrics such as MAE and RMSE.
- Developed APIs for recommendations based on user preferences, category, and mood, and documented the project workflow with a video walkthrough.

### **Human Detection and Counting Through Deep Learning** | *YOLOv8 Nano, Python, OpenCV* **GitHub**

- Developed a high-accuracy (96%) human detection model by fine-tuning YOLOv8 Nano, using custom-annotated classroom images collected from our college's Wincell department.
- Published this project as a research paper at ICRAIC'24, contributing insights on manual data annotation and model optimization.

## Achievements and Certifications

---

### Research Achievements

- **Harsh Bhanushali**, et al. (2024). *"Enhancing Human Detection and Counting Efficiency Through Deep Learning: A Comprehensive Approach."* Presented at **ICRAIC 2024**.
- Proposed innovative techniques for human detection in blurred images, demonstrating the efficiency of YOLOv8-based models.

**Publication:** [Paper Link](#)

### Achievements

- **Winner - 2024 Solution Challenge (General Category)** Secured 1st position and won INR 7,500 prize for developing an innovative solution.

### Certifications

- **Data Structures and Algorithms Using JAVA** (IIT Kharagpur, NPTEL)
- **Introduction to Machine Learning** (IIT Madras, NPTEL)
- **Intro to Machine Learning** (Kaggle)
- **Foundation to AI , Data Science and Data Analytics** (Samatrix.io)
- **Data Analysis Using Python** (Samatrix.io)
- **Hackathon Participant - OdooxCharusat Hackathon** (Organized by Odox India, March'25)
- **Hackathon Participant - 2024 Solution Challenge Hackathon** (Organized by KDPIT(CHARUSAT), Jan'25)
- **Hackathon Participant - IMMUNOQUEST Kaggle Competition** (Organized by CSE(CHARUSAT), Jan'25)