

Hirvita Mandaviya

AI/ML Developer

hirvitamandaviya01@gmail.com | 7567270418 | Ahmedabad, Gujarat

[LINKEDIN](#) | [HACKERRANK](#) | [GITHUB](#) | [PORTFOLIO](#)

EDUCATION

NOBLE UNIVERSITY

MASTERS OF COMPUTER APPLICATION

CGPA: Present

June 2025 - March 2027

Junagadh, Gujarat

DR. SUBHASH UNIVERSITY

BACHELORS OF COMPUTER APPLICATION

CGPA: 9.77

July 2022 - March 2025

Junagadh, Gujarat

M. M. G. BHUVA KANYA VIDHYA MANDIR

COMMERCE HSC

Percentage: 94.28%

Jun 2021 - Jun 2022

Junagadh, Gujarat

M. M. G. BHUVA KANYA VIDHYA MANDIR

SSC

Percentage: 86.5%

Jun 2019 - Jun 2020

Junagadh, Gujarat

EXPERIENCE

BLUEPIXEL TECHNOLOGIES LLP | AI/ML TRAINEE

Ahmedabad, Gujarat | Aug, 2024 – Jan 2025

- Gained hands-on experience with Python basics, SQL.
- Developed skills in deploying models and building applications using the Django framework.
- Learned Exploratory Data Analysis (EDA) and its various graphing techniques.
- Worked on object tracking, object detection, and model prediction tasks.
- Acquired skills in creating custom datasets with labeling using RoboFlow.
- Learned how to use models from Hugging Face for various tasks and implemented chat-with-PDF functionality.
- Learned to fine-tune models for specific tasks to improve performance.
- Gained experience in creating REST APIs
- Exploring Google AI Studio and learning how to use Gemini API Key for AI applications.
- Worked with face recognition libraries such as matplotlib, face_recognition, OpenCV, and DeepFace.

BLUEPIXEL TECHNOLOGIES LLP | AI/ML DEVELOPER

Ahmedabad, Gujarat | Feb 2025 – Present

- Gained hands-on experience with FastAPI, implementing secure JWT-based authentication and backend integration.
- Implemented voice-to-text using Whisper model and text-to-speech using Google TTS for natural audio generation.
- Explored and fine-tuned diffusion models, successfully training Stable Diffusion with LoRA weights on a flower dataset, and performed creative image transformations.
- Designed and implemented map-based geolocation functionality using Google Maps JavaScript, Geocoding, and Places API, and developed multi-form super admin client management features in GoodFR Phase 3 project.
- Built a multi-agent text-to-video generation pipeline: generating topic-based scripts, images, avatars, background transitions, audio narration, and final lip-syncing using SadTalker for complete end-to-end video creation.
- Initiated experimentation with LangGraph to design stateful, multi-step AI applications and explore advanced agent-based workflows.

SKILLS

PROGRAMMING LANGUAGES	Python, HTML, JavaScript, SQL
LIBRARIES/FRAMEWORKS	Django, Bootstrap, Pandas, Numpy, OpenCV, langchain, Tensorflow, PyTorch, Keras, Scikit-Learn, Matplotlib, FastAPI, YOLO, Google Gemini, LangGraph
TOOLS / PLATFORMS	Git, VS Code, Jupyter Notebook, Kaggle, HuggingFace, colab, Google AI Studio, LangGraph Studio, N8N, docker
DATABASES	MySQL, PostgreSQL, MongoDB, FAISS, CromaDB

PROJECTS / OPEN-SOURCE

PORTFOLIO LINK	HTML, CSS, JavaScript
<ul style="list-style-type: none">Developed a personal portfolio website with HTML, CSS, and JavaScript, highlighting my programming expertise and project portfolio.The website is designed with a clean, modern aesthetic and includes dynamic features for an engaging user experience.	
MEDICAL RAG CHATBOT FOR HEART HEALTH LINK	LLM, Google Colab, Huggingface, Cromadb
<ul style="list-style-type: none">Developed a Medical Chatbot for heart health using the open-source BioMistral LLM model, providing users with personalized health insights and recommendations based on their inputs.	
NUMBER PLATE DETECTION WITH OCR	Python, YOLO, EasyOCR, Roboflow
<ul style="list-style-type: none">Trained a YOLO model using a labeled number plate dataset from Roboflow to detect number plates from live video streams or videos.Extracted and read the detected number plates using EasyOCR for automated recognition and processing.	
PATHOLOGY PLUS	Django, Gemini API, NLP Model, MySQL
<ul style="list-style-type: none">Created a platform for users to upload pathology reports in PDF format for analysis.Utilized Gemini API to extract data from reports and preprocess it.Fine-tuned an NLP model for parameter name similarity to enhance analysis accuracy.Built a Django-based system to provide report analysis and insights to users.	
LORA FLOWER DIFFUSION LINK	Stable Diffusion Model, LoRA (Low-Rank Adaptation), Huggingface
<ul style="list-style-type: none">Fine-tuned Stable Diffusion model on a Huggingface flower image dataset using LoRA (Low-Rank Adaptation) for efficient parameter training.Implemented training pipeline for dataset preparation, model fine-tuning, and weight saving, with image generation tested via Jupyter notebooks.Generated high-quality flower images from text prompts, demonstrating the models ability to adapt to domain-specific datasets.	
GOODFR-PHASE3	Python, FastAPI, MySQL, Redis
<ul style="list-style-type: none">Integrated Google Maps JavaScript API, Geocoding, and Places API to enable interactive geolocation for gateways, sites, and sensors.Built map-based visualization to easily track and manage products at different locations.Developed super admin "Add/Edit Client" functionality with multi-form/multi-function support.Designed and implemented the complete UI, connected APIs, and integrated seamlessly with the backend services.	
BLUEPIXEL RTLS (REAL-TIME LOCATION SYSTEM)	Machine Learning, Python
<ul style="list-style-type: none">Project is about an indoor live tracking system using gateways and tags for real-time location monitoring.	

- Trained machine learning models on beacon RSSI signals from multiple gateways to predict positions on the floor.
- Implemented and experimented with fingerprint-based approaches and a Random Forest model for location estimation.
- Gained strong insights into handling signal variations caused by environmental factors (e.g., walls, human body, height) and improved model robustness for accurate location prediction.

TEXT-TO-VIDEO GENERATION

LangGraph, Python, EdgeTTS for text-to-voice, SadTalker

- Built a multi-agent pipeline to generate end-to-end 1-minute videos from a given topic.
- The system generates scripts, images, and avatars, applies background transitions using masked images, and produces audio narration.
- Finally, lip-syncing is performed using SadTalker to align avatar speech with audio, resulting in a complete video output.

CERTIFICATIONS

- TCS iON Career Edge - Young Professional - **TCS iON**
- SQL Intermediate - **SOLOLEARN**
- Workshop on Prompt Engineering of 3 Hours - **LETSUPGRADE**
- Introduction to Generative AI studio - **SIMPLILEARN SKILLUP**
- Python (Basic) - **HACKERRANK**
- Generative AI - **GUVI GEEK NETWORKS, IITM RESEARCH PARK**
- Build a Resume Review Agentic System with CrewAI - **ANALYTICS VIDHYA**
- n8n: A Complete Guide to the Automation Tool - **ANALYTICS VIDHYA**