Hirvita Mandaviya

AI/ML Developer
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LinkedIn | HackerRank | GitHub | Portfolio

EDUCATION

NOBLE UNIVERSITY — June 2025 - March 2027
Masters of Computer Application — Junagadh, Gujarat
CGPA: Present

DR. SUBHASH UNIVERSITY — July 2022 - March 2025
Bachelors of Computer Application — Junagadh, Gujarat
CGPA: 9.77

M. M. G. BHUVA KANYA VIDHYA MANDIR — Jun 2021 - Jun 2022
Commerce HSC — Junagadh, Gujarat
Percentage: 94.28%

M. M. G. BHUVA KANYA VIDHYA MANDIR — Jun 2019 - Jun 2020
SSC — Junagadh, Gujarat
Percentage: 86.5%

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 – Feb 2026

- 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.

E-PROCUREMENT TECHNOLOGIES LIMITED | AI/ML Developer Ahmedabad, Gujarat | Feb 2026 – Present

- I maintain a live AI summarization system, proactively troubleshooting and resolving issues, including manual fixes when necessary.
- I also continuously explore emerging technologies to improve performance and expand my expertise.

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, LanGraph
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

- 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

- 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

- 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

- 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

- 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

- 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

- 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**