

DARPAN NEMADE

Ahmednagar, Maharashtra, India | +91 9356606402 | darpannemade2004@gmail.com
LinkedIn | GitHub

Education

Bachelor of Technology, *VIT Bhopal University, Bhopal, MP* **Expected May 2026**
Specialization: Computer Science with Artificial Intelligence and Machine Learning
Cumulative GPA: 8.59/10

SREF, *Ahmednagar, Maharashtra* **Jul 2022**
12th Standard (HSC) 81%

Yashshree Academy, *Ahmednagar, Maharashtra* **Mar 2020**
10th Standard (CBSE) 97%

Technical Skills

Programming: Python, Java, HTML, CSS, JS

Technologies: Machine Learning, Deep Learning (TensorFlow, PyTorch, CNNs, RNNs, Keras), Automation (n8n automation), CV (OpenCV, YOLO), NLP (LLM APIs, RAG, LangChain), Streamlit, REST APIs, Flask.

Projects

ODIN — AI-Powered NFT Marketplace with Smart Wallet Chatbot (link) July 2025

- Developed an intelligent NFT marketplace integrated with a signature-verified AI chatbot that executes blockchain actions.
- Built a Retrieval-Augmented Generation (RAG) chatbot handling wallet-linked queries like “buy NFT”, “send ETH”, and crypto FAQs.
- Powered by multi-model LLaMA (OpenRouter/local) with real-time context injection (memory, wallet info, ETH balance). Implemented secure wallet verification using EIP-191 signature flow via MetaMask.
- Created smart contract interactions (minting, listing, transfer) using Solidity and Web3.
- Deployed NFT admin panel, suggestion engine, sentiment-aware responses, and follow-up prompts.

Thermal Surveillance System (link) April 2025

- Built a real-time thermal surveillance solution combining YOLOv8 and Faster R-CNN for dynamic object detection with 3D visualization in Unreal Engine.
- Captured live thermal video streams for human and object tracking in low-visibility environments.
- Used socket programming to bridge Python-based detectors with UE5 rendering pipeline.
- Applications: defense, disaster response, and wildlife monitoring.

Full-Stack Music Streaming App (link) April 2025

- Designed and implemented a Spotify-style music streaming app with real-time playback and user activity.
- Enabled secure user authentication and playlist management using JWT & MongoDB.
- Built RESTful APIs to manage tracks, genres, and user data.
- Used Web Audio API and sockets for seamless song streaming and control.

Brain Tumor Classification System February 2025

- Developed a high-accuracy deep learning model for multi-class brain tumor detection (glioma, meningioma, pituitary) using hybrid ResNet-DenseNet architecture.
- Trained on preprocessed MRI datasets to identify and localize tumors with high precision.
- Achieved superior performance by combining feature reuse (DenseNet) with residual connections (ResNet).
- Integrated Grad-CAM visualizations for explainability in medical diagnosis.

Social Media Caption Generator (link) January 2025

- Engineered a neural network that generates natural-language captions from input images using a CNN-LSTM hybrid.
- Extracted image features using pre-trained VGG16/InceptionV3 CNNs.
- Generated grammatically coherent and context-aware captions using an LSTM decoder.
- Designed for accessibility tools and auto-captioning in media applications.

Extracurricular

Maharashtra Club, VIT Bhopal Jan 2023 – May 2025
• Served as an event management committee member in several club events.

Additional

- **Languages-** Hindi(fluent), English (fluent), Marathi (fluent)