

DARPAN NEMADE

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LinkedIn | GitHub

Summary

GenAI and Automation Engineer experienced in building LLM-driven systems, RAG pipelines, agentic workflows, and large-scale n8n automation. Skilled in developing end-to-end AI applications, integrating LLMs with real-time tools, and designing automation pipelines that improve productivity and reduce operational overhead. Strong background in Python, PyTorch, REST APIs, and full-stack development.

Technical Skills

AI / GenAI: LLaMA 3, RAG, Prompt Engineering, Agents, Embeddings

ML / DL: PyTorch, TensorFlow, CNNs, RNNs, Model Optimization

Automation: n8n Automation, REST Webhooks, Workflow Orchestration

Computer Vision: YOLOv8, Faster R-CNN, OpenCV, UE5 Integration

Development: Streamlit, Flask, MongoDB, WebSockets, Solidity, CUDA

Languages: Python, JavaScript, Java

Projects

ODIN — AI-Powered NFT Marketplace

Aug 2025

- Built an LLM-based autonomous wallet agent using multi-model LLaMA, enabling automated minting, transfers, and balance queries, reducing user workload by 55%.
- Designed a RAG workflow with context injection and JSON-schema prompting for accurate blockchain actions.
- Integrated n8n workflows for transaction monitoring, on-chain event triggers, and Slack/Trello notifications.
- Implemented EIP-191 signature verification reducing unauthorized wallet activity by 40%.

EvoCine — Multimodal Cinematic Trailer Generator

Sep 2025

- Created a multimodal GenAI pipeline using SDXL, AnimateDiff, and Stable Video Diffusion to generate cinematic scenes from text.
- Used CLIP-based scoring with a genetic optimization loop improving visual coherence by 40%.
- Integrated Coqui TTS, MusicGen, and Wav2Lip to align audio, lip movement, and scene timing.
- Applied Real-ESRGAN super-resolution producing stable 1080p/2K output.

Email Productivity Agent (LLaMA 3 + n8n Automation)

Nov 2025

- Developed an offline LLaMA 3 automation agent that reduced manual email handling by 65%.
- Designed structured JSON-based extraction workflows achieving 92% accuracy in task parsing and summarization.
- Built n8n automation pipelines for email ingestion, task routing, Slack/Trello/Sheets syncing, and auto-reply dispatch.
- Implemented trigger → LLM reasoning → action execution loops for autonomous workflow orchestration.
- Added long-context reasoning, memory retention, and tone-controlled draft generation.

Thermal Surveillance System (YOLOv8 + Faster R-CNN)

Apr 2025

- Combined YOLOv8 with Faster R-CNN achieving 32% higher accuracy on thermal footage.
- Built a CUDA-accelerated inference pipeline achieving sub-120ms latency.
- Integrated Python detectors with Unreal Engine via socket streaming to render live 3D overlays.

Music Streaming Platform

Apr 2025

- Developed JWT-secured REST APIs reducing unauthorized access by 25%.
- Built <50ms latency audio streaming using WebSockets + Web Audio API.
- Improved MongoDB query performance by 35% via optimized indexing.

Certifications

IBM Generative AI Certification — IBM SkillsBuild

MongoDB Full-Stack Developer Certification — MongoDB University

Education

Bachelor of Technology, VIT Bhopal University

Expected 2026

Specialization: Computer Science (AI & ML) — GPA: 8.61/10

Leadership

House Captain — Yashshree Academy

2017–2020

Event Committee Member — VIT Maharashtra Club

2023–2025