



# Kesavardhan Makireddi

Bachelor of Technology

Artificial Intelligence and Machine learning

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## EDUCATION

- **Indian Institute Of Management Visakhapatnam** Jan 2026 - Jan 2028  
*Master of Business Administration - PGPMCI*
- **Indian Institute Of Information Technology Nagpur** Nov 2022 - June 2026  
*Bachelor's of Technology, Computer Science Engineering - Artificial Intelligence And Machine Learning*

## EXPERIENCE

- **C5i**  Oct 2025 - April 2026  
*Artificial Intelligence Intern* Mumbai
  - Developed an agentic planner platform that empowers users to visually build and manually edit domain-specific process workflows using GPT-based models, RAG, React Flow, Dagre, and multimodal language models. .
- **Infoteck Solutions**  Oct 2024 - March 2025  
*Machine Learning Intern* Remote
  - Developed a custom pipeline for automated XML-to-JSON file conversion using Large Language Models (LLMs), by using fine-tuning techniques on models like Mistral-7B, llama with Quantization, LoRA, and QLoRA to optimize performance.
  - Collaborated with **SambaNova Cloud** for testing their AI Models and built AI-driven automations on **Workato** by integrating OpenAI models and different technologies to optimize workflows.
- **Indian Institute of Information Technology, Nagpur**  May 2024 - July 2024  
*Machine Learning Research Intern* Remote
  - Designed an architecture that integrates diffusion models with GAN- discrimination for image generation.
  - Developed an generative model that integrates a diffusion model as the generator and a GAN-based discriminator to produce high-quality, realistic images. Leveraged Kaggle datasets via the Kaggle API

## PROJECTS

- **AI-Driven-Border-Security-and-Strategic-Management-System** Nov 2024  
*Tools: YOLOv8, OSNet, LBPH, Haar Cascades, OpenCV, Python, PyTorch, NumPy, Matplotlib.* 
  - Built a real-time face and weapon detection system using YOLOv8 to identify weapons (pistols, rifles)
  - Used Haar Cascade and LBPH for face detection and classification into "Soldiers" or "Terrorists."
  - Integrated OSNet Re-ID to re-identify and track armed unauthorized individuals across frames, assigning consistent IDs for accurate monitoring and alerting.
- **DeepFake Detection with EfficientNet-B0 + BiLSTM** March 2025  
*Tools: EfficientNet-B0, BiLSTM, Kaggle, PyTorch, NVIDIA RTX 4050 GPUs* 
  - Developed a deepfake detection system using EfficientNet-B0 for spatial features and BiLSTM for temporal modeling, achieving accurate detection on the Celeb-DF v2 dataset.
  - Extracted frame-wise features and modeled temporal dependencies to achieve 97% classification accuracy with 97% precision, minimizing false positives.
- **Language Translation and Summarization** Oct 2024  
*Tools: mbart, Pegasus, Transformers, PyTorch, matplotlib, nltk* 
  - Built an NLP pipeline using mBART and Pegasus for fluent, culturally-aware translation and summaries.
  - Fine-tuned mBART (BLEU: 27.4) for Hindi-English translation and Pegasus (ROUGE-L: 30.12) for summarization using the IIT Bombay Hin-Eng corpus.
- **Source code Analysis using Langchain** July 2025  
*Tools: Python, Flask, RAG, LangChain, OpenAI API, ChromaDB, HTML, CSS, JavaScript* 
  - Developed a LangChain-powered code analysis chatbot that clones GitHub repositories, parses Python code, and enables semantic search using OpenAI embeddings stored in ChromaDB.

- Built a Flask-based backend with conversation memory and integrated an HTML/CSS/JavaScript frontend for interactive Q&A.

**Other Projects :** *Sign Language Detection, Sentiment Analysis, Music Recommendation System using Reinforcement Learning, Earthquake Prediction, Crop Disease Prediction, Object Detection in Simulated space stations, Job scraping Automation using n8n*

## PUBLICATIONS

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- **Deep Learning for Skin Disease Classification Using Smartphone Images and Clinical Metadata, IEEE**  
Developed a multimodal deep learning framework for skin cancer (ACK/BCC) diagnosis that uses multi-head self-attention to jointly process image features from Vision Transformers (ViT's) and clinical metadata, achieving 92.83% accuracy on smartphone images while improving diagnostic precision and clinical interpretability.

## SKILLS

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- **Programming Languages:** Python, R, SQL
- **Frameworks & Libraries:** NumPy, Pandas, Scikit-learn, Matplotlib, OpenCV, Seaborn, NLTK, SpaCy, Gensim, Flask, Keras, TensorFlow, PyTorch, FastAPI, React JS, Django, Spark, Hadoop, MXNet, Caffe, ROS, OCR, Streamlit, Gradio
- **Generative AI:** LLMs, LangChain, RAG, LangGraph, AutoGen, Hugging Face Transformers, GANs, Diffusion Models
- **Developer Tools:** Git/GitHub, VS Code, Jupyter Notebook, Power BI, Google Dialogflow, Kaggle API, Linux, MATLAB
- **Cloud & Databases:** AWS, Azure, Google Cloud platform (GCP) MySQL, XAMPP, VectorDB
- **AI Automation Platforms:** Workato, n8n

## CERTIFICATIONS

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- **Building Transformers-Based NLP applications** | [Nvidia](#)
- **Accelerated Computing with CUDA Python** | [Nvidia](#)
- **Certified Deep Learning** | [Nvidia](#)
- **Certified Data Analysis** | [IBM](#)
- **Deep Learning Image Generation with GANs and Diffusion Model** | [Udemy](#)
- **Generative AI, from GANs to CLIP, with Python and PyTorch** | [Udemy](#)
- **Prompt Engineering PRO** | [Udemy](#)

## ACHIEVEMENTS

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- Top 5 Finisher Out of 120 Teams Hackbyte 3.0 Hackathon (IIITDM Jabalpur)
- Winner Multiple Esports Tournaments (IIM Vizag, Sambalpur; IIITN)