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AI/ML Tech Lead | Architecting Scalable AI Systems
Applied Deep Learning & Gen AI Solutions

SUMMARY

AI/ML Tech Lead with 3+ years of experience designing and deploying end-to-end Solutions in Deep Learning, and Generative AI systems. Leading AI/ML at Impact Digifin Technologies, with a focus on Generative AI, multimodal learning, and advanced automation frameworks. Leading the design of robust, production-grade AI systems integrating LLMs, computer vision, and data intelligence to enable adaptive and scalable enterprise solutions. Experienced in delivering production-grade computer vision and AI automation systems, optimizing edge inference on NVIDIA Jetson, and orchestrating high-performance ML workflows. Adept at team leadership, cross-functional collaboration, and designing scalable AI architectures for real-world impact.

WORK EXPERIENCE

AI/ML Tech Lead

Impacto Digifin Technologies, Bengaluru   *Oct 2025–Present*

- Leading the Artificial Intelligence & Machine Learning development initiative, architecting robust pipelines for **data extraction, documentation, storage, and retrieval**.
- Driving framework design for **AI infrastructure and workflow automation**, ensuring reliability, scalability, and modularity.
- Collaborating with cross-functional teams to integrate AI-driven solutions into enterprise systems, accelerating data-driven decision-making.
- Applying expertise from prior **computer vision & deep learning** projects to extend capabilities into multi-modal AI Solutions.
- Mentoring junior engineers and fostering a **team-oriented, innovation-first environment** focused on clean design, performance optimization, and maintainability.

Associate AI Engineer

Edsols Innovations Private Limited, Bengaluru   *Sep 2024–Present*

- Designed and deployed **CNN/SSD-based object detection models** for autonomous vehicles, improving detection accuracy and reducing system latency by 15%.
- Developed and integrated **retail analytics AI pipelines** (ML-based customer segmentation + DL-based activity detection), increasing client ROI by 20%.
- Built **real-time voice AI pipelines** using Whisper, open-source LLMs, and TTS systems, enabling conversational interfaces for embedded devices.
- Optimized **edge AI inference on NVIDIA Jetson** platforms, improving speed by 25% while maintaining accuracy.

Graduate Engineering Trainee

Edsols Innovations Private Limited, Bengaluru   *Jul 2023–Aug2024*

- Contributed to **ML, DL, and early-stage LLM integration** projects for industrial automation, predictive maintenance, and human–machine interfaces.
- Developed **computer vision and ML-based predictive models** for industrial defect detection, reducing operational.
- Configured **Linux kernel** and CUDA environment on NVIDIA Jetson Nano, improving system reliability by 30%.
- Experimented with **speech-to-text + LLM query processing** for factory floor assistance and operator guidance.

SKILLS

- **AI/ML:** Machine Learning, Deep Learning, Computer Vision, Generative AI, Model Optimization, Drift Analysis, Data Engineering, Data Pipelines, Feature Engineering, Knowledge Graphs, Information Retrieval, MLOps, ML Frameworks
- **Programming &Frameworks:** Python, SQL, pandas, NumPy, TensorFlow, PyTorch, Scikit-learn, FastAPI, LangChain, OpenAI APIs, Hugging Face, ML flow, DVC, Docker, REST APIs
- **Systems & Tools:** NVIDIA Jetson (Nano, Xavier), CUDA, Edge AI Deployment, Linux Kernel Optimization, Git, CI/CD, Vector Databases (FAISS, Pinecone, Milvus), Cloud Platforms (AWS, Azure, GCP)
- **Leadership & Collaboration:** Technical Team Leadership, Strategic Planning, Project Management, Cross-Functional Collaboration, Agile Development, Code Review & Mentorship, Knowledge Documentation
- **Languages:** English (Professional), German (Beginner)

EDUCATION

- **B.Tech in Artificial Intelligence and Data Science**
  Sri Ramakrishna Engineering College, Coimbatore

CERTIFICATIONS & HONORS

- **Fundamentals of Accelerated Computing with CUDA Python** | *NVIDIA Deep Learning Institute*
- **AI on Jetson Nano** | *NVIDIA Deep Learning Institute*
- **Applications on Jetson Nano** | *NVIDIA Deep Learning Institute*
- **Finalist**, *Techgium by L&T – National-Level Open Innovations Hackathon*

PERSONAL PROJECTS

- [Real-Time Voice AI Assistant](#) **- Webapp** *(Generative AI, LLMs, Speech Recognition, TTS, WebRTC)*
  - Built a fully voice-activated AI assistant with **continuous listening, real-time voice activity detection, and LLM-powered responses**, using Whisper for transcription and Edge-TTS for speech synthesis.
  - Implemented low-latency audio streaming with WebRTC for **seamless conversational experiences** on the web.
- [AI Voice Assistance Pipeline](#) *(Speech-to-Text, LLMs, Conversational AI)*
  - Designed a real-time **voice-to-text + text-to-speech pipeline** combining Whisper, open-source LLMs, and TTS engines.
  - Enabled **natural, interactive conversations** with sub-second response latency, optimized for edge deployment.
- [Medical Equipment Detection](#) *(Deep Learning, OpenCV, NVIDIA Jetson Nano)*
  - Built a CNN-based object detection model for ICU equipment in collaboration with **GE Healthcare**, achieving **92% accuracy** in real-time inference.