Rithick M K

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Professional Summary

Results-driven Generative AI and Machine Learning Developer with expertise in deep learning, large language models (LLMs), diffusion models, NLP, and computer vision. Proven track record of deploying scalable AI applications, fine-tuning domain-specific architectures, and integrating AI into full-stack environments. Skilled in designing intelligent, data-driven solutions with measurable business impact.

Technical Skills

Programming: Python, C, Java, SQL
Frameworks: PyTorch, TensorFlow, Keras, Hugging Face Transformers
Libraries: NLTK, spaCy, scikit-learn, OpenCV, FAISS
Cloud & Deployment: AWS, GCP (basic), CUDA, Flask, FastAPI, Gradio, Qt (PyQt), ONNX, Docker, Git, Linux, Triton Inference Server
Computer Vision: YOLOv8, EfficientNet, UNet, ResUNet
Tools: Jupyter Notebook, Power BI, Excel

Projects

Comment Toxicity Detection
- Designed a hybrid CNN-RNN-LSTM model for real-time toxic comment detection.
- Achieved an 87.59% F1 score, improving accuracy by 18% over baseline.
- Deployed with Gradio for real-time user feedback.

Defect Detection for Manufacturing
- Built a two-stage AI pipeline: EfficientNet classification + YOLOv8/ResNet/UNet defect localization.
- Achieved 95% accuracy, reduced false negatives by 20%, improved speed by 15%.
- Deployed with Triton Inference Server for real-time analysis.

Chatbot (LLAMA)
- Developed a Retrieval-Augmented Generation chatbot using Flask, FAISS, Hugging Face embeddings.
- Integrated Ollama LLM + RetrievalQA for context-sensitive responses, improving accuracy by 32%.
- Deployed with Docker and Flask API for scalable production use.

Education

Bannari Amman Institute of Technology, B.Tech. in Artificial Intelligence and Data Science (2026) -8.13
Sri Chaitanya Techno School, Grade 12 (2022) -76%
KMC Public School (CBSE), Grade 10 (2020) -86%

Awards & Achievements

- India Skills 2024 — Bronze Medal (Fabric Design and Development, among 100+ participants)
- Finalist — IITDM National Conference (Osteoporosis Detection using Deep Learning)
- Finalist — ASET International Conference (ITC Best Practices for Green IT)

Certifications & Training

- NVIDIA — Deep Learning Specialization
- Microsoft — Power BI Data Analyst

Soft Skills

Strong problem solving, communication, teamwork, creativity, innovative thinking, and leadership skills.