Alexander Reddy – *Machine Learning Engineer | Deep Learning | GenAI | End-to-End AI Solutions*

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Professional Summary

Result-driven Machine Learning Engineer with 5+ years of experience designing, deploying, and optimizing ML/DL/GenAI solutions. Passionate about solving real-world problems through AI innovation.

Education

National Institute of Technology, Warangal
Master of Science (Technology), India — Post *Graduated: Jun 2004*

Technical Skills

- **Languages/Tools:** Python, SQL, Git, Bash
- **Libraries/Frameworks:** Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch, Keras, OpenCV, XGBoost, NLTK, SpaCy
- **Deployment & Web:** Flask, Streamlit, FastAPI, Docker, AWS (EC2, S3), Azure
- **Concepts:** Supervised & Unsupervised ML, NLP, CNN, RNN, OCR, LLMs, RAG, Chatbot

Professional Experience

Freelance Data Scientist (Upwork) — *Oct 2023 – Present*

- Achieved **a 90% Job Success Score on Upwork**, delivering exceptional results in **multiple ML, DL, and GenAI projects for global clients**. Focused on model design, implementation, and performance optimization, providing end-to-end solutions tailored to client needs in industries such as healthcare, telecom, and chatbot development. View profile and feedback.

Machine Learning Engineer (*Qvantel, Hyderabad*)— *Mar 2020 – Oct 2023*

- Contributed to the development of the **Allegro IVD Smart Camera**, integrating **AI/ML/DL** for diagnostic automation. Developed **Linux apps**, device drivers, and image pipelines using **CMOS sensors**. Built and deployed **ML/DL models** for image classification, object detection, and anomaly detection. Implemented vision features like liquid-level detection, cap classification, and barcode decoding on embedded hardware. Watch the demo.

Projects

AI/ML & Cloud-Based Solutions(2023-Present)

- **Telecom Churn Prediction:** Built a predictive model using XGBoost and Scikit-learn to identify potential churners with an **AUC-ROC of 0.85**. Deployed end-to-end using Flask on AWS.
  GitHub Repo

- **Wound Image Classification:** Developed a CNN-based multi-class classification model, **improving accuracy from 50% to 85%.** Deployed for real-time image processing using OpenCV and Flask on AWS.
  GitHub Repo

- **RAG-Based Chatbot**: Built a Retrieval-Augmented Generation (RAG) chatbot using LangChain and LLMs. Integrated OCR for data extraction from PDFs and SQL sources, deployed with Streamlit on AWS.
  GitHub Repo

Embedded AI/ML Vision Solutions (2020-2023)

- Developed and deployed **liquid-level detection** using **AI/ML** on embedded hardware for real-time diagnostics.
- Led the **cap classification** project utilizing **deep learning models** to accurately classify bottle caps on embedded devices.
- Engineered a robust **barcode decoding** system on embedded hardware, optimizing speed and accuracy for inventory management.

Additional Highlights

• **Created LinkedIn content** on **ML/DL/GenAI** for 3K+ followers, building a strong community and expanding reach.
• **Mentor and guide** aspiring data scientists through DMs, calls, and educational content.
• Actively contribute to **GitHub** with end-to-end projects and code demos.
• Launched a **YouTube Channel** on **Tech Projects**: AlexTechProjects.
• Developed and managed a **WordPress site** using **HTML, CSS, and JavaScript** to showcase projects and tutorials.

Key Strengths

Problem Solving | Client Communication | Business Impact | Leadership | Cloud Deployment