

ODETI DHANRAJ

+91 9542450574 | dhanush.odeti@gmail.com | linkedin.com/in/odeti-dhanraj | github.com/Dhanraj200547

Summary

Machine Learning Engineer specialized in Generative AI and Agentic Workflows. Proven expertise in building RAG-based LLM systems using LangChain and Gemini, and developing self-correcting AI Agents. Proficient in Python, vector indexing, and deploying full-stack AI applications via Docker and GCP.

Education

Malla Reddy Engineering College <i>Bachelor of Technology in CSE - AIML (GPA: 8.03)</i>	Expected June 2026 Hyderabad, Telangana
• Relevant Coursework: Data Structures and Algorithms (Java), Prob & Stat in CS (Python), Artificial Intelligence, Machine Learning , Linear Algebra w/Computational Applications (Python)	

Government Polytechnic College, Masab Tank <i>Diploma in ECE (GPA: 9.19)</i>	October 2020 – June 2023 Hyderabad, Telangana
• Relevant Coursework: Analog & Digital Electronics, Microprocessors & Microcontrollers, Communication Systems, Signal Processing, Embedded Systems	

Experience

BIT SOLUTIONS <i>Co-Founder and Developer</i>	June 2024 – May 2025 Hyderabad, Telangana
• Co-founded a student-led startup focused on building software solutions for real-world local business problems. • Designed and developed a billing software for SV Café to manage orders, invoices, and daily sales operations. • Built an emergency petrol delivery application to help users request fuel during vehicle breakdown situations. • Worked closely with end users to gather requirements and translate them into functional product features. • Collaborated with co-founders in a fast-paced startup environment and adapted to changing requirements.	

Lampex Electronics, Hyderabad <i>Intern</i>	Dec 2022 – May 2023 Hyderabad, Telangana
• Assisted in the assembly, testing, and quality inspection of electronic products and components • Conducted troubleshooting for minor faults in circuits and ensured proper calibration before shipment • Developed problem-solving and analytical skills by troubleshooting electronic systems and equipment. • Supported the team in workflow optimization and documentation of processes. • Gained hands-on experience in a professional work environment, understanding industry operations.	

Projects

Simple RAG-Based LLM Chatbot <i>LLM, RAG, LangChain, FAISS, Gemini</i>	
• Implemented a RAG-based QA system integrating LangChain, Gemini LLM, and FAISS, enabling accurate real-time responses by retrieving relevant context from embedded documents using GoogleGenerativeAIEmbeddings. • An end-to-end retrieval pipeline with custom FAISS vector indexing, document chunking, and semantic search, providing contextual answers with source traceability in a scalable, locally storable format.	
Bank Statement Parser Agent <i>Python, PDFPlumber, Pandas, AI Agent</i>	
• Engineered an Agentic AI system using a self-correcting loop to autonomously generate and refine Python parsers for unstructured PDF bank statements. • Cleaned, standardized, and validated financial data to match target CSV schemas with 100% accuracy. Automated data extraction pipelines for financial analysis and reporting.	

MedVisionAI – Predicting Hospital Readmissions <i>React, Flask, Docker, CI/CD, Google Cloud - Deployed on Google Cloud</i>	
• Analyzed patient health records to identify key factors contributing to hospital readmissions. Performed data cleaning, feature engineering, and exploratory data analysis (EDA) using Pandas and NumPy. • Built predictive models and evaluated performance using accuracy, precision, recall, and ROC-AUC. Visualized trends and risk factors to support data-driven healthcare insights	

Drone Detection System | YOLOv8, OpenCV for webcam

- Trained a YOLOv8-based drone detection model achieving 87.6% mAP@0.5 and 41.6% mAP@0.5–0.95 on a custom UAV dataset, enabling accurate real-time aerial surveillance.
- Optimized detection pipeline with configurable model variants and live tracking, achieving streamlined deployment through modular scripts for training, validation, and real-time inference.

AI Resume Screener | spaCy, Python, Streamlit, FastAPI - Deployed on Google Cloud

- Developed an AI-powered resume screening tool using spaCy to automate parsing, extraction, and matching of candidate skills with job descriptions.
- Achieved 85%+ accuracy in screening and classifying resumes against job descriptions based on the skill match.

Leaf Disease Detection using Convolutional Neural Networks | Tensorflow, Keras, OpenCV

- Developed a deep learning model with 95%+ accuracy to classify plant leaf diseases using a CNN trained on publicly available datasets. Optimized the model using callbacks and evaluation metrics like confusion matrix and accuracy.
- Implemented data augmentation using ImageDataGenerator and optimized a multi-class classifier achieving accurate detection of leaf diseases from custom-organized datasets

Technical Skills

Generative AI: LLM Fundamentals, RAG Systems, Prompt Engineering, LangChain, LlamaIndex.

AI/ML: Machine Learning, Deep Learning, NLP, Generative AI, MLOps, Cloud AI

Frameworks: TensorFlow, PyTorch, Scikit-Learn, OpenCV, spaCy, Hugging Face Transformers, LangChain, FastAPI

Databases and Vector DBs: MySQL, Firebase, Firestore, FAISS, Pinecone, ChromaDB

Tools: VS Code, Git, Google Cloud, Firebase Console, Google Colab, Jupyter Notebook, Docker, Streamlit, Vertex AI

Certifications

Production Machine Learning Systems - Google Cloud Coursera (August 2025): [link](#)

Google Machine Learning Crash Course - Google Developers (June 2025): [link](#)

Google Cloud and Generative AI - GDSC (Nov 2023): [link](#)

Achievements

- Solved 100+ algorithmic problems on LeetCode across Java and Python, strengthened skills in Data Structures, Dynamic Programming, Binary Search, and Graphs. | LeetCode: [link](#), Hackerrank: [link](#)
- Authored in-depth blogs covering real-world projects, shared hands-on tutorials, learnings, and problem-solving approaches; improved personal brand and reach in the tech community. | Hashnode: [Blog-link](#)

Extra Curricular Activities

Turing Cup 2k25 – Turing Hut, VNRVJIET

- Competed in a college-level programming competition as part of BITSolutions
- Applied data structures, algorithms, and coding fundamentals under time constraints

Google Developer Student Clubs (GDSC), MREC

- Active member; participated in workshops and events on Web Development, AI/ML, Cloud, and Git/GitHub
- Collaborated with peers on mini-projects and technical discussions