Dinesh Ram

Associate AI Engineer

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Summary

As an AI Engineer, I'm passionate about turning complex challenges into practical solutions. With strong programming skills and hands-on experience in machine learning and deep learning, I focus on building and deploying models that make a real-world impact. I'm always curious and excited to explore new ideas and find innovation in the AI space.

Experience

Edsols Innovations Pvt. Ltd.   Bengaluru, India

- **Associate AI Engineer**   **Sep 2024 - Present**
  - Built an interactive therapy app using **ReactJS and FastAPI**, focused on accessibility and responsiveness for children with disabilities.
  - Integrated AI-driven phoneme matching and EMR module for real-time feedback, reporting, and **30% improvement in diagnostic accuracy**.
  - Used **LLMs and Faster-Whisper** to extract structured medical data during patient onboarding, enabling **instant EMR creation** and reducing manual entry for therapists.

- **Graduate Engineer Trainee**   **Jul 2023 - Aug 2024**
  - Developed Flask-based software to process large financial datasets, optimizing SQL commands and parallelizing report generation with PostgreSQL, **reducing report generation time by 70%** and visualizing insights through Power BI dashboards, significantly improving efficiency.
  - Built and deployed computer vision and predictive models using deep learning frameworks on robots for automation tasks.
  - Deployed a chatbot on AWS, enabling customers to access stock data more quickly, reducing data retrieval time and enhancing overall user efficiency.

GE Healthcare Lab @Sri Ramakrishna Engineering College   Coimbatore, India

- **Student Researcher**   **Jan 2022 - May 2023**
  - Designed a **YOLOv5**-based Medical Equipment Detection System with GE Healthcare for ICU monitoring, achieving **90% accuracy** on real-world hospital data.
  - Optimized with TensorRT for **20ms inference** and deployed on Jetson Nano for real-time edge performance, enhancing ICU equipment tracking workflows.

Projects 🔗

Wingman AI Assistant — LlamaIndex, ChromaDB, PGVector, FastAPI
Agentic AI system using **LlamaIndex and RAG**, capable of performing assistant tasks such as **sending emails, scheduling events, looking up information**, and executing tool-based reasoning workflows.

CodeGuide - AI-Powered Code Explanation Tool — Chrome Extension, LangChain, FastAPI
Built a **Chrome extension** using **FastAPI, LangChain, and LLMs** to provide **context-aware code explanations** directly in the browser.

Dynamic Knowledge Graph Generator — LTTS Techgium
Streamlined data structuring by generating **dynamic, clutter-free knowledge graphs** using NLP and neuralcoref.

AI Image Description Tool for the Visually Impaired — Smart India Hackathon
Designed a **CNN-LSTM model** for real-time image-to-speech conversion, enabling accessibility on edge devices.

Education

Bachelor of Technology in Artificial Intelligence and Data Science   **2020 - 2024**
Sri Ramakrishna Engineering College   CGPA: 9.11/10
Coimbatore, Tamil Nadu

Certifications and Skills

Certifications

- Deep Learning with Keras, EdX
- Business English Certification (B2), Cambridge UP
- AI on Jetson Nano, NVIDIA
- AWS Machine Learning, LinkedIn
- MLOps Essentials, LinkedIn

Skills

- **Languages:** Python (NumPy, Pandas), R, SQL, JavaScript, C++
- **Frameworks and Tools:** TensorFlow, PyTorch, Transformers, Scikit-Learn, FastAPI, Flask, React, PostgreSQL, LangChain, LlamaIndex, Faiss, Chroma, AWS, Docker, Kubernetes, Git, Streamlit
- **Core:** Machine Learning, NLP, Data Science, Reinforcement Learning, Generative AI