RONITH DHANESH

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EDUCATION

- **VIT Bhopal University, Madhya Pradesh** **(***August, 2022- pursuing)*
  B. Tech CSE (AIML) | CGPA: **8.52**

SKILLS

- **Programming Languages:** Python, Java, JavaScript, SQL
- **AI/ML and Libraries:** TensorFlow, PyTorch, LangChain, LangGraph, Scikit-learn, OpenCV, NumPy, Pandas
- **Web Technologies:** HTML, CSS, Streamlit, FastAPI
- **Tools and Frameworks:** Git, Docker
- **Core Competencies:** Real-time Communication, Speech Recognition, Full-Stack Development, Model Training & Evaluation, DSA, OOP

PROJECTS

AI-Powered Medical Report Analyzer *(June, 2025)*

Python, LangChain, Groq, Tesseract OCR, Streamlit

- Engineered an AI-driven medical report analysis system by integrating OCR and LLMs via a LangChain framework to automate the extraction and interpretation of critical medical terminology.
- Developed a responsive web application with Streamlit, enabling real-time, multi-format and batch processing that reduced manual review time for medical reports by over 60%.
- Implemented robust data validation pipelines and error handling, significantly enhancing diagnostic workflow efficiency and improving accuracy for healthcare professionals.

Real-Time Vehicle Detection and Counting System *(April, 2025)*

Python, OpenCV, YOLOv8, SORT, Numpy

- Developed a computer vision pipeline that accurately monitors and counts vehicles in complex traffic scenarios using YOLOv8 detection and the SORT tracking algorithm.
- Optimized model performance by implementing binary masking techniques, achieving a stable 30+ FPS and a 40% reduction in computational load.
- Created an automated traffic data collection solution for urban planning initiatives, reducing the need for expensive and error-prone manual counting methods.

Medical Image Classification using Deep Learning *(June, 2024)*

Python, TensorFlow, Keras, Streamlit

- Implemented a ResNet-based transfer learning model to classify medical images for cataract detection, achieving a high degree of classification accuracy.
- Designed and built a robust data preprocessing pipeline using techniques like normalization, augmentation, and dataset splitting to improve model generalization on diverse medical imaging datasets.
- Deployed a user-friendly, interactive web application with Streamlit to enable real-time medical image analysis for faster and more accessible preliminary screenings.

EXTRACURRICULARS

- **Certifications**: IBM GenAI using Watsonx | IBM Blockchain Developer | IBM Blockchain Fundamentals | Applied Machine Learning in Python – Coursera | Gen AI – AdroIT Technologies | Blockchain – AdroIT Technologies
- **Media Team Lead:** Malayalam Club – Directed content strategy and managed all social media platforms to promote club events and enhance public presence and engagement.
- **Strengths**: Public speaking, event and people management, budgeting, creative planning, and leadership.

ADDITIONALS

- **Languages**: Fluent in English, Malayalam and Hindi