

ANIRUDDHA H D

AI/ML Engineer & Deep Learning Specialist

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[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

PROFESSIONAL SUMMARY

Built and deployed deep learning models for healthcare and finance use cases, including LLM fine-tuning for medical QA and AI-powered expense categorization. Developed scalable backend systems using Python, Django, and FastAPI, and delivered full-stack applications with real-time analytics and automation features. Proven expertise in computer vision, natural language processing, and MLOps with hands-on experience in AWS cloud services.

PROFESSIONAL EXPERIENCE

Deep Learning and MLOps Intern

Basava Pracheena Vaidya Anveshana Pvt Ltd.

May 2024 – December 2024 | Bengaluru, Karnataka

- Engineered a scalable deep learning model utilizing YOLO and CNN frameworks on AWS SageMaker, achieving a 15% improvement in tongue diagnosis accuracy and a 20% improvement in pulse diagnosis accuracy
- Supported the deployment of ML models using tools like Docker and basic MLOps workflows using AWS EC2 for production-ready healthcare applications
- Standardized data preprocessing pipelines using Python and Pandas, decreasing model training time by 15% and improving the accuracy of tongue diagnosis models by 8% on a dataset of 2,700 images
- Collaborated with medical professionals and data scientists to integrate AI solutions into diagnostic workflows and production systems

KEY PROJECTS

AI-Powered Expense Management System

Python, Flask, Transformers, SQLAlchemy, React, Hugging Face, JWT, Docker

- Developed a full-stack financial tracker using Flask and React, integrating Hugging Face Transformers for 85% accurate expense categorization on 500 sample entries
- Applied ML model on 3 months of mock data to generate budget suggestions, improving savings accuracy by 10% through intelligent financial analysis
- Built a secure REST API with JWT authentication and SQLAlchemy, enabling auto-categorization and forecasting with 90% uptime in local Docker deployment

Leaf Disease Detection System

Python, TensorFlow, FastAPI, Flask, Docker, PlantVillage Dataset, Computer Vision

- Trained a CNN using TensorFlow on 3,076 images in PlantVillage dataset, achieving 92% accuracy in plant disease classification
- Deployed the plant classifier as a FastAPI service and built a lightweight Flask UI for real-time predictions under 1 second latency
- Dockerized the project into two containers: one for the model API and another for the UI, enabling seamless interaction between frontend and backend

RD Sharma Question Extraction Pipeline

Python, Flask, PyMuPDF, Transformers, LaTeX, OCR, Tesseract, EasyOCR

- AI-powered pipeline that extracts mathematical questions from RD Sharma Class 12 textbook using OCR and LLM processing with 96.8% average confidence
- Built a responsive web interface with real-time processing that extracts 560+ questions per chapter in under 3 minutes with professional LaTeX output
- Implemented advanced OCR fallback using Tesseract and EasyOCR to handle scanned PDFs, achieving 95%+ text extraction accuracy across 102 pages

TECHNICAL SKILLS

Programming Languages

Python, JavaScript, SQL, HTML, CSS

Web Development & APIs

Flask, Django, FastAPI, React, REST APIs, SQLAlchemy, JWT Authentication

Specialized Technologies

Computer Vision, NLP, OCR, YOLO, CNN, PyMuPDF, Tesseract, EasyOCR, LaTeX

ML/DL Frameworks & Libraries

TensorFlow, PyTorch, Scikit-Learn, NumPy, pandas, OpenCV, Transformers, Hugging Face

Cloud & DevOps

AWS (EC2, S3, SageMaker), Docker, Kubernetes (basic), Git, MLflow

Developer Tools

VS Code, Jupyter Notebooks, Linux, Git Version Control, Docker Containers

EDUCATION

Bachelor of Engineering in Artificial Intelligence and Machine Learning

Jyothy Institute of Technology, Bengaluru, Karnataka

2021 – 2025 | CGPA: 7.74/10

CERTIFICATIONS

Deep Learning Specialization

By Andrew Ng, DeepLearning.ai

Machine Learning Specialization

By Andrew Ng, DeepLearning.ai, Stanford University

Mathematics for ML & Data Science

By Luis Serrano, DeepLearning.ai