Robert H Lubenow

AI/ML Engineer
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Summary

I focus on creating reliable AI/ML solutions with strong emphasis on evaluations and safety. That means thinking beyond the model: how data flows through the system, how to properly evaluate performance in production, and how to build AI systems that are both effective and trustworthy.

Tech Stack

Languages: Python, R, SQL, bash

GenAI & Agentic: OpenAI, Anthropic, LangChain, LangGraph, LlamaIndex, n8n, PGVector, Ollama, HuggingFace, FAISS, PyTorch, OpenCV, ONNX, OpenVINO

Full-Stack & APIs: FastAPI, Flask, Streamlit, Next.js, React, Tailwind CSS

DevOps & Cloud: Docker, AWS, Azure, Vercel, Linux, GitHub

Education

Master of Science, Applied Artificial Intelligence
University of San Diego | San Diego, CA
Class of 2022

Bachelor of Science, General Biology
University of Oregon | Eugene, OR
Class of 2016

Professional Experience

AI Engineer II | Thermo Fisher Scientific
April 2023 – Present | Carlsbad, CA

- Manage portfolio of 10+ AI/ML projects across various domains in life science and manufacturing processes
- Architect RAG systems and document ingestion pipelines, improving scientist productivity and customer satisfaction
- Build scalable MLOps infrastructure using PyTorch, FastAPI, MLFlow, and docker for cloud/on-premise deployment
- Develop computer vision models for quality control processing 10,000+ images daily at >99% performance
- Collaborate with scientists across 10+ domains to rapidly apply ML solutions to complex problems
- Mentor junior engineers on production ML practices and code review processes
- Co-inventor on 3 internal patent-pending innovations developed through cross-functional collaboration with research teams

Co-founder & Head of AI | Artificial Intelligence Identification, Inc.
May 2023 – Present | San Diego, CA

- Co-founded AI consulting company specializing in agricultural computer vision solutions
- Lead AI development for crop analysis and labor tracking, currently serving hop farmers with expansion to apple and cherry orchards
- Design proprietary ML models for yield prediction, disease detection, and crop health monitoring

AI/ML Consultant | LogisticsMRO
April 2025 – Present | Remote

- Design AI solutions for aircraft maintenance optimization and predictive analytics for military and commercial aviation
- Develop ML models for maintenance scheduling, parts forecasting, and compliance tracking in cloud-based MRO platform

AI Engineer | Thermo Fisher Scientific
June 2022 – March 2023 | Carlsbad, CA

- Implemented ML algorithms for instrument optimization and automated quality control
- Built real-time monitoring dashboards for ML model performance metrics

Imaging Research Associate | Liver Imaging Group, UC San Diego Health
September 2021 – May 2022 | La Jolla, CA

- Developed deep learning models for organ segmentation achieving 95% accuracy in medical imaging
- Applied NLP to 30+ years of radiology reports for unstructured data search capabilities
- Co-authored 3 peer-reviewed abstracts on deep learning for disease progression prediction