M. KAIF KOHARI

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PROFILE SUMMARY

ML Engineer with 3+ years of experience and a proven track record of translating cutting-edge research into end-to-end robust, scalable solutions for commercial products, with a focus on LLMs, fine-tuning techniques and MLOps. Passionate about improving LLM reasoning, achieving SOTA results with small models and leveraging RL techniques.

KEY SKILLS

Python | Javascript | C++ RL, LLM finetuning AWS
Machine Learning (Pytorch, Keras) RL infra (Docker, Kubernetes, kubeflow) REST APIs

Generative AI MLflow, DVC, CI/CD SQL Databases

Dev (Django, Flask)

Advanced ETL & Data pipelines

Vector retrieval Databases

PROFESSIONAL EXPERIENCE

Syntagma Labs, London

MAY 2024 - NOV 2024

Machine Learning Intern

- Built ML algorithms for crypto transaction analysis to support AML investigations, using Pytorch and **networkx** to predict illicit transactions and detect anomalies with 97% accuracy.
- Conducted Al-driven research on terrorism financing and scam transactions with bitcoins using crypto APIs, LSTMs, and graph data visualization, providing critical insights into crypto risks

ZCLAP, Texas AUG 2023 - DEC 2023

Machine Learning Engineer

- Deployed mutiple advanced AI systems like video AI meeting assistant, official government document extractor, video summarizer using Large Language models, GANs and SOTA hugging-face stable diffusion models for text to image generation.
- Successfully commercialized these AI solutions, leading to their sales on the AWS Marketplace, enhancing client engagement and revenue streams for the company

Vsualthree60 AUG 2022 - NOV 2022

Computer Vision Intern

- Collaborated on the development of Computer Vision models to precisely perform emotion detection, people count, age/gender detection in videoframes, achieving seamless synchronization.
- Models were successfully integrated in CCTV cams across various supermarkets.

Tungsten Studios

JUN 2021 - JULY 2021

Data science Intern

• Created an algorithm to automate detection of elements (doors, windows) via pixel intensity tools with Python in architectural drawings, accelerating layout mapping by 40%.

OYE INDIA - NGO APR 2021 - JUN 2021

ML Intern

 Executed critical safety Computer Vision systems, including Driver facial Drowsiness Detection system, an automated license plate recognition system for identifying vehicles violating traffic laws for a government NGO

PROJECTS

Finance Lab – Agentic research assistant for hedge funds and analysts

Demo - http://financelab.click:8000/

- Engineered a RAG pipeline with advanced retrieval (rerankers, Qdrant vector DB and a finance-finetuned LLM) that extracts KPIs, earnings, revenue, etc from enormous reports like 10-Ks, 10-Qs in seconds, cutting analyst research time by ~90%
- Built a Dockerized FastAPI app and deployed on AWS ECS Fargate enabling natural language querying and structured outputs for analysts, traders, and portfolio managers.

Favourite Video Game Describer

https://pht5sypm5h.us-east-1.awsapprunner.com/

- A fun agent that transforms your story descriptions into personalized game recommendations by analyzing gameplay and genres using MCP tool calling functionality and GPT 4o.
- A Dockerized Flask app, deployed on AWS cloud App Runner for scalability.

Pneumonia Diagnosis on X-rays with CNNs

https://github.com/Kaif10/Pneumonia-Diagnosis

 Created and trained 3 different CNN architectures with Keras achieving 90% sensitivity and 85% specificity for X-ray pneumonia detection, leveraging transfer learning and finetuning methods to handle a large, imbalanced medical dataset.

Emotion Detection from twitter profiles

https://github.com/Kaif10/Emotion_Detection_in_Tweets

- Trained a **bi-directional LSTM network** to do sentiment analysis on COVID-era Twitter data using BeautifulSoup and Selenium for real-time scraping of tweets from Twitter.
- Performed comprehensive ETL processes, including data cleaning, transformation, and structuring, to convert raw scraped tweets into a high-quality dataset optimized for ML model training.

EDUCATION & CERTIFICATIONS

Bachelor of Engineering

University of Mumbai, SFIT (8.0/10)

Masters in Applied Data science

<u>Royal Holloway, University of London</u> (<u>Distinction</u>)

 Implemented Video Action-Recognition for Master's thesis, using (ResNet-152)CNN, LSTM, and Attention-Mechanism for crowd surveillance, achieving 97% accuracy.

COURSES & CERTIFICATIONS

- Advanced Computer Vision (Deeplearning.ai)
- Cloud Computing-AWS (IBM)
- Agile And Scrum (IBM)

EXTRACURRICULAR ACTIVITIES

AI/ML Intern (Hackathon Selection)

Selected at DJSCE college hackathon for an Al internship with an NGO, applying ML to impactful social causes.

Treasurer and Technical Head, Computer Society of India (CSI)

Led a team of 26 in organizing workshops on data science, communication, and leadership. Hosted a club talk show, interviewing prominent tech professionals. - The CSI Show

Machine Learning Content Creator

Created ML content for <u>Medium</u>, Orchids International School and UpGrad KnowledgeHut simplifying complex tech topics.