Alaap Dhall

Position: Sr. Al Engineer

Senior AI Engineer with over 5 years of experience specializing in deep learning algorithms and AI frameworks like PyTorch. I excel at optimizing end-to-end AI pipelines and have deep expertise in advanced architectures such as ResNets, DeTR, YOLOs, and ViTs. I'm dedicated to leveraging AI technologies to drive innovation.







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in linkedin.com/in/alaapdhall

WORK EXPERIENCE

Senior AI Engineer KoiReader Technologies

11/2020 - Present

Enabling Warehouse and Logistics Automation through Advanced AI

Led a team of 40 people as a Senior AI Engineer

- Led end-to-end development of AI models, training advanced CV (YOLO, DeTR, DINO) and LLMs using OLora. Optimized models using QAT/PTQ for real-time deployment on edge devices such as NX, AGX, and ORIN.
- Designed a Multi-Agentic Agno based GPT system integrated with a Postgresql DB to enable human-like conversation with the database. Implemented custom finetuned Qwen model, custom chunking, DeepSeek, and Agentic RAG techniques to improve the accuracy of data retrieval with GuardRail integration.
- Integrated a multi-camera object tracking system, enhanced with an in-house ReID model for robust crosscamera tracking and a multi-label Swinv2 classifier to optimize runtime, boosting system efficiency by over 40%.
- Developed Agentic RAG application using open-source Vision LLMs such as CogVLM2, Gemma3 27B, Qwen 2.5VL to analyze and label documents. Leveraging techniques such as re-ranking, Agentic chunking, and Parseq OCR, achieving over 98% accuracy in PDF document analysis.
- Created Custom SAM2-based Image Augmentations Pipeline for all Object Detection, Segmentation, and Classification tasks utilizing the latest generative libraries like Text2Live, Real-ESRGan, SAM2, Grounding DINO, and Qwen2.5 VL to aid AI model with much better convergence
- Developed and internally deployed a custom-tuned **Chat** application and company-wide MR Reviewer, enhancing employee productivity and ensuring data privacy.

Data Scientist Vidooly Media Tech.

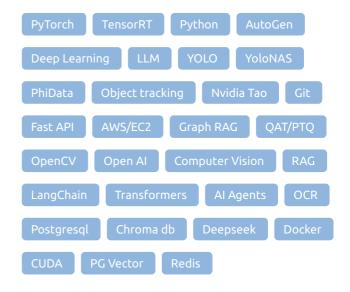
09/2019 - 07/2020

AI based video analytics

Achievements/Tasks

- Enhanced the efficiency of the **Oriented Object Detection** tracking system, increasing performance from 10 FPS to 30 FPS, enabling precise and reliable vehicle tracking.
- Optimized the workflow of the **Brand Safety Multi-label** Classification model, effectively comprehending client requirements and delivering Deep Learning-powered Brand Safety services.
- Conceived and implemented statistical and machine learning models, along with feature extraction systems, for forecasting YouTube subscribers utilizing Time-Series techniques and XGBoost.

DL TECHNICAL SKILLS



PERSONAL PROJECTS

HakiSense (AI Quantitative analysis) (12/2024 - Present)

- Developing a very comprehensive AI Agentic ecosystem with 20+ Data Analysts and Financial Experts to perform holistic company analysis.
- Multiple Agents will communicate with each other using custom tools and RAG to assess company growth, future prospects, and sector-specific risks for informed stock evaluation.

Creator of Data Science & ML Community

Built a thriving community of 7,000+ followers by curating 100 state-of-the-art Deep Learning projects, fostering skill development and innovation within the community

ACHIEVEMENTS

POC to scalable production systems

Took Multiple projects from a POC stage to Production Stage with a team of CV experts. Achieved high accuracy, and edge device efficiency on custom AI models, leading to a Fortne50 account.

Complex AI model development

Successfully leading the development of AI models that significantly improved operational efficiency in logistics.