

## **Summary**

Innovative AI Engineer with 5+ years of experience in designing and delivering Computer Vision solutions, including object detection, tracking, re-identification, and OCR systems. Proven leadership in deploying high-performance systems for diverse industries — automotive, retail, and manufacturing. Ability in building full-stack AI pipelines, integrating Python/C++ backends, deploying on GPU environments, and scaling with FastAPI, TensorRT, and MongoDB. Seeking to apply full-stack and AI engineering experience in scalable SaaS products with a focus on robotics, LLMs, and DevOps/AIOps practices.

## **Experiences**

Global Walkers Co. Ltd, Yangon, Myanmar

### *Senior AI Engineer / Team Lead (2022 – 2025)*

- Led and mentored a multidisciplinary team of AI engineers, fostering collaboration to accelerate project delivery and enhance team performance.
- Managed end-to-end project lifecycles, from concept development through system architecture design, to deliver scalable and resilient AI solutions.
- Evaluated AI model research to create impactful Proofs of Concept that strengthened client engagement and facilitated successful project implementation.
- Oversaw task delegation, provided technical guidance, and optimized development processes, effectively minimizing bottlenecks and ensuring timely achievement of project milestones.

### *AI Engineer (2020 – 2022)*

- Collaborated with cross-functional teams to design and implement advanced AI and computer vision systems addressing complex business requirements.
- Conducted comprehensive research, model training, and optimization to meet or exceed client performance and accuracy benchmarks.
- Translated system design specifications into clear development tasks, ensuring robust, production-grade solutions across multiple projects.
- Produced detailed research analyses and technical documentation that supported strategic decision-making and continuous process enhancements.

## **Projects**

### **Multi-Camera Real-Time Baggage Tracking System**

- Architected and led the development of a high-performance, real-time baggage tracking system across five synchronized surveillance cameras
- Integrated RT-DETR for high-accuracy baggage detection and OC-SORT for real-time multi-object tracking.
- Implemented Centroid-based ReID to ensure consistent baggage identity across non-overlapping camera views.
- Implemented concurrent multi-threading to achieve real-time processing across multiple video feeds.

### **AI-Powered Blueprint Symbol Detection System**

- Built a scalable FastAPI backend with Celery and RabbitMQ for high-throughput, asynchronous distributed processing.
- Achieved 95%+ detection accuracy in low-data settings using a custom-trained YOLOX-m model on high-res TIFF images.
- Designed a synthetic data generation pipeline and integrated inference with a Qt C++ desktop application with MongoDB used as data storage.

### **Real-Time Person Re-Identification System**

- Developed a real-time, full-stack tracking system to identify and follow individuals across multiple street-level CCTV cameras.
- Combined NanoDet for lightweight detection with OC-SORT for efficient multi-camera re-identification, achieving responsive performance.
- Engineered a full-stack web application using React, Flask, and MongoDB, enabling real-time data visualization from camera feeds and enhancing analytics processing speeds by 40%.

### **Multimodal Visual Understanding & Report Generation System**

- Built a multimodal system using Streamlit and FastAPI to enable image interpretation and natural language generation for visual understanding.
- Automated structured Excel report generation with OpenPyXL, embedding input images and model-generated textual insights.
- Integrated Phi-3.5-Vision-Instruct and Phi-3.5-Mini-Instruct from HuggingFace for efficient local inference, combining VLM and LLM capabilities.

## **Skills**

- |              |               |
|--------------|---------------|
| • Python     | • OpenCV      |
| • C++        | • Celery      |
| • Nextjs     | • HuggingFace |
| • FastAPI    | • ROS2        |
| • Flask      | • Docker      |
| • Qt         | • Kubernetes  |
| • PyTorch    | • MongoDB     |
| • TensorFlow | • Firebase    |

## **Education**

Dec 2012 - Oct 2018

*Yangon Technological University*

B.E. in Computer Engineering and Information Technology

## **Certifications**

- *AWS Machine Learning Specialty*
- *AWS Cloud Practitioner*
- *DeepLearning.AI Specialization in Deep Learning*

## **Languages**

- *English - Business Level*
- *Japanese - N4*