

Ahmed Aly

Applied AI Engineering | Customer Solutions | Product Development

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SUMMARY

Customer-facing AI engineer and startup co-founder in Abu Dhabi, with commercial applied-AI work since 2023. Built a wrong-site surgery detection prototype in six weeks through clinician design meetings and staged hospital evaluation; medical professionals subsequently submitted it for a Ministry of Health grant. Combines Python application engineering, multimodal AI and reusable agent workflows with foundation-model research spanning 4 million videos. Brings hands-on implementation, customer discovery and product ownership across healthcare, enterprise AI and sports analytics.

WORK EXPERIENCE

Research Engineer I

Jun 2026 – Present

Mohamed bin Zayed University of Artificial Intelligence, BioMedIA Lab

Abu Dhabi, UAE

- Develop echocardiography foundation models at MBZUAI's medical-imaging research lab; EchoVision pretraining spans 4 million videos (36 TB) across 64+ GPUs using distributed SLURM infrastructure.
- Co-authored CardioBench (IJCAI-ECAI 2026), establishing a common evaluation framework for foundation-model generalization across 9 tasks and 8 public datasets.
- Lead 4 interns developing a multimodal vision-language model for FLARE 2026 at MICCAI; work remains in progress.
- Delivered a foundation-models tutorial to 30–50 researchers at the MICCAI Winter School, pairing theory with a hands-on notebook for zero-shot evaluation, linear probing and visualization.

Machine Learning Engineer (Part-time)

May 2025 – Present

Labib AI

Abu Dhabi, UAE

- Built a wrong-site surgery detection prototype in six weeks at this enterprise AI solutions firm, translating clinician feedback into a dashboard integrating speech recognition and visual analysis; evaluated through staged hospital scenarios and subsequently submitted by medical professionals for a Ministry of Health grant.
- Contribute site surveys, solution design and technical proposals for confidential public-sector work, translating customer requirements into proposed dashboard and analytics integrations at the procurement stage.
- Benchmark detection, language, vision-language and speech models on edge devices, using latency measurements to select models for real-time on-device inference.
- Manage 2 interns and guide technical direction for an on-prem agent platform, bringing retrieval, persistent state and approval gates into a shared foundation for enterprise workflows.

Computer Vision Engineer, Co-founder

Jan 2023 – Present

Koralyze AI

Abu Dhabi, UAE

- Co-founded a sports-analytics startup and own its tracking and data-science layer, converting single-camera football broadcasts into calibrated player tracks, events and team and player metrics.
- Co-delivered an AI-in-sports workshop with the UAE Sports Science & Sports Medicine Center, drawing 127 registrants across 20 nationalities and earning 4.6/5 across 105 responses.
- Lead federation partnership development; showcased the product at GITEX Expand North Star 2023.

Mathematics Teacher

Aug 2020 – May 2024

Ministry of Education

Sharjah, UAE

- Taught AP Calculus AB and BC in UAE schools, translating advanced mathematics into lessons and worked examples for high-school students.

PROJECTS

LabibAI Agent

Labib AI

LangGraph, Ollama, Qdrant, PostgreSQL, MinIO, Docker Compose

- Architected and reviewed the platform while mentoring its intern implementer: a supervisor routes requests to specialist agents with gated tools for HR, procurement, recruiting and analytics workflows.
- The platform combines Qdrant document retrieval with PostgreSQL checkpoints so workflows retain context and pending approvals across restarts; an operator console exposes approvals and audit history.
- Reusable workflow skills package schemas, validators and evaluation suites; read-only SQL and constrained chart execution support guarded analytics with artifacts stored in MinIO.

SKILLS

Application engineering: Python, SQL, C++, Django, PostgreSQL, SQLAlchemy, Git, Linux

AI systems: PyTorch, OpenCV, LangGraph, LangChain, RAG, Qdrant, Ollama, Qwen, Whisper, agent evaluation suites

Infrastructure and evaluation: Docker Compose, MinIO, edge inference, latency benchmarking, SLURM, distributed multi-GPU training, cross-dataset evaluation

Languages: English (IELTS 8.0), Arabic (native)

EDUCATION

Mohamed bin Zayed University of Artificial Intelligence

Aug 2024 – May 2026

Master of Science in Computer Vision

GPA: 3.75

Khalifa University

Aug 2016 – Aug 2020

Bachelor of Science in Applied Mathematics and Statistics

GPA: 3.57

SELECTED PUBLICATIONS

CardioBench: Do Echocardiography Foundation Models Generalize Beyond the Lab? **IJCAI-ECAI 2026**

Ahmed Aly, Darya Taratynova, Numan Saeed, Mohammad Yaqub

EchoSonar-R: A Multi-View Reasoning-Enabled Model for Disease Classification and Report Generation in Echocardiography **arXiv preprint, 2026**

Darya Taratynova, Ahmed Aly, Numan Saeed, Mohammad Yaqub

Language and Planning in Robotic Navigation **LM4Plan, AAAI 2025**

Malak Mansour, Ahmed Aly, Bahey Tharwat, Sarim Hashmi, Dong An, Ian Reid