

Hussam Aldossary

Software Engineering (Artificial Intelligence & Data Science) Student | Machine Learning & Computer Vision | Agentic AI

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SUMMARY

Senior Software Engineering (Artificial Intelligence & Data Science) student at Prince Sultan University building a foundation in machine learning and computer vision through personal projects, coursework, and national programming competitions. Has developed and deployed applied ML systems spanning object detection, facial expression recognition, and embedded robotics control. Working toward specializing in agentic AI — systems that can reason, decide, and act — and open to internships, research, and project opportunities in ML, computer vision, and AI. **Looking for a COOP (from 13 December 2026 to 24 June 2027).**

EDUCATION

Prince Sultan University — Riyadh, Saudi Arabia

Expected 2027

Bachelor of Science in Software Engineering (Artificial Intelligence & Data Science)

EXPERIENCE

Industry4.0 Club — Prince Sultan University

2026 – Present

Website Developer (Volunteer)

- Building the club's website and taking it to production. (<https://industry4psu.com>)

PROJECTS

Tent Detector — YOLOv11 Object Detection

2026

github.com/alm7zm/tent-detector-yolov11

- Fine-tuned YOLOv11n (Ultralytics) on the Roboflow Tendo dataset (5,688 train / 541 validation / 274 test images) to detect tents in aerial and campsite imagery.
- Achieved 98.3% mAP@0.5 with 97.8% precision and 97.8% recall after training on GPU.
- Applied data augmentation (flips, brightness/exposure variation) to improve generalization across image conditions.

SkillStack — The Agentic Study Architect | KANZ AI Training Hackathon

github.com/alm7zm/Skill_Stack

- Built and deployed a bilingual AI-powered certification planning platform that evaluates users' goals and generates personalized learning roadmaps and study plans.
- Developed an agentic workflow using Gemini, Claude, n8n, and Tavily to assess certification fit and retrieve relevant learning resources.
- Integrated Supabase, Google OAuth, and Google Calendar to persist user plans and automatically schedule study sessions.
- Implemented secure database access using Row Level Security (RLS) and validated retrieved resources to reduce hallucinated or invalid recommendations.
- Deployed the application to Vercel as part of the Kanz Agentic AI Training / AI Hackathon.

Jul 2026

Facial Emotion Classifier — CNN + OpenCV

2026

github.com/alm7zm/emotion_classifier

- Designed and trained a 4-layer CNN (batch normalization, dropout, global average pooling) to classify facial expressions on the FER2013 dataset.
- Cleaned and rebalanced the dataset via undersampling across 6 emotion classes (19,026 training / 4,986 test images).
- Deployed a real-time webcam application using OpenCV Haar Cascade face detection, with smoothed live predictions.

Sumo Robotics Bot — Team 0IQ

2026

github.com/alm7zm/Sumo_robotics_3kg

- Co-developed autonomous sumo robot firmware in C++ for Arduino as part of Team 0IQ; placed 2nd in competition.
- Implemented IR-based opponent tracking and line-sensor edge detection with automatic recovery maneuvers.
- Designed 3 DIP-switch-selectable opening strategies and PWM motor control.

AWARDS

2nd Place — Sumo Robotics Competition, Team 0IQ

2026

Participant — Programming Jam 9.0

2 March 2024

SKILLS

Programming: Python, C++, Java, JavaScript, HTML/CSS

ML & AI: PyTorch, TensorFlow, Keras, pandas, OpenCV, Ultralytics YOLO, scikit-learn, CNNs, object detection, LoRA/QLoRA fine-tuning, data augmentation, mAP and CER/WER evaluation

Tools: Git & GitHub, Jupyter, Arduino, Roboflow, Hugging Face, WEKA;

Languages: Arabic (native) • English (excellent)