QAIM BAADEN

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SUMMARY

Software engineer with machine learning expertise, specializing in computer vision and data-driven automation.
Background in full-stack development and AI model deployment.

EDUCATION

THE UNIVERSITY OF TOKYO (東京大学) — Bunkyo City, Tokyo, Japan
Masters Graduate Program in International Multidisciplinary Engineering under GVLab — October 2025 - Present
Full-Sponsored by MEXT Scholarship

UNIVERSITY MALAYA — Kuala Lumpur, Malaysia
Bachelor of Software Engineering (Honors) — 2021 - 2025

WORK EXPERIENCE

SHIBAURA INSTITUTE TECHNOLOGY - DOLY Lab — Koto City, Tokyo, Japan
Research Intern - (Emotion-Aware Robotics) — February 2025 - Present

- Developing real-time AI systems integrating sensor data processing, machine learning inference, and automated response generation on Linux/ROS2 platform.
- Optimized legacy ML pipeline, reducing processing latency from 200ms+ to sub-50ms through asynchronous architecture redesign and GPU-accelerated inference.

Schoolscans CTIE Sdn Bhd — Kuala Lumpur, Malaysia
Software Developer Intern — September 2023 - December 2023

- Developed full-stack school website application for Cempaka International School using ReactJS and Laravel.
- Optimized website to handle over hundreds of concurrent users.

EDU360 Academy — Kuala Lumpur, Malaysia
Part-time Robotics Tutor — April 2024 - July 2024

- Taught programming fundamentals and system integration covering sensor integration, control logic, algorithmic problem-solving

UNIVERSITY PROJECTS

Carbon Footprint Predictor

- Built machine learning model to predict building CO2 emissions from design parameters (size, HVAC type, insulation, location), enabling early-stage optimization for LEED/WELL certification
- Trained Random Forest model on 5,000+ commercial building energy consumption records (ASHRAE dataset), achieving 92% prediction accuracy (R^2 score)

AerialVision

- Deployed multi-scale YOLO detection pipeline achieving 89% mAP on urban aerial imagery, identifying vehicles, buildings, and infrastructure across 10,000+ satellite/drone images
- Optimized inference pipeline to process 1920×1080 images at 42ms latency on GPU, enabling real-time traffic monitoring and automated land-use classification

ADDITIONAL

Technical Skills: Python · Java · C · JavaScript (ES6+) · TypeScript · SQL (MySQL, PostgreSQL) · MERN Stack (MongoDB, Express, React, Node.js) · Go (basic) · RESTful APIs · AWS (EC2) · Docker (basic) · Linux/Ubuntu · TensorFlow · scikit-learn · YOLOv8 · OpenCV · Computer Vision · pandas · NumPy · ROS2 · CI/CD (GitHub Actions) · Git
Languages: Fluent In English/Business Level, Malay.