Muhammad Irfan Fahmi

Computer Engineering and Machine Learning
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Professional Summary

Computer Engineering background at UTeM with applied project work in object detection hand gesture classification and multi model orchestration. Connects model inputs and evaluation to practical interfaces data storage and observable system behaviour.

Education

Universiti Teknikal Malaysia Melaka UTeM Bachelor of Computer Engineering with Honours
Oct 2022 to Nov 2026
Graduation scheduled for 2 November 2026.

Politeknik Port Dickson Diploma in Electronic Engineering Computer
Dec 2018 to May 2022

Kolej Komuniti Selandar Certificate in Computer Systems and Networking
Jul 2017 to Feb 2019

Technical Skills

Applied ML YOLOv8 OpenCV MediaPipe Hands Random Forest feature engineering precision and recall cross validation.

Programming and integration Python JavaScript SQL and MySQL camera and barcode inputs browser inference.

Agent systems Multi model consensus LLM orchestration Termux and Linux telemetry watchdog recovery.

Selected Projects

Hybrid Self Checkout
Built a Python pipeline combining YOLOv8 and OpenCV product detection USB barcode input and MySQL product and transaction data. Repository reported evaluation 77.4 percent precision and 72.0 percent recall after 50 epochs. Tested visual verification challenges including occlusion and similar packaging.

Gesture Recognition and Touchless Reader
Converted MediaPipe hand landmarks into 71 dimensional features and a 100 tree Random Forest for browser inference in JavaScript. Implemented gesture navigation with cooldowns and virtual controls. Reported 98.6 percent cross validation accuracy. Not a real world user accuracy measurement.

Hermes and Multi Model Agent Orchestration
Built a documented Python and Termux experiment with multi model consensus routing telemetry watchdog recovery and post mortem analysis on mobile hardware. Separated serving and gateway processes and used telemetry to review model disagreement and unavailable provider behaviour.

Technical Experience

Technical Staff Global Elite Ventures Sdn. Bhd
Sep 2021 to Jul 2022
Technical troubleshooting and hardware and software deployment.

Contract Assistant Engineer ARNN Technologies and Karar Solution
Jun 2020 to Jul 2020
Engineering project support and technical problem solving.

Technician OKCS Seri Kembangan
Jun 2018 to Nov 2018
Diagnostics repairs hardware maintenance and software configuration.

Professional Registrations

BEM Graduate Engineer Computer branch. Approved 15 October 2026. Public directory.

MBOT Graduate Technologist Information and Communication Technology IT. GT26100872. Approved 22 October 2026.

Selected Training

Festo and STDC Industrial Automation with AI in Manufacturing 14 to 16 July 2026.

Cisco Networking Academy Enterprise Networking Security and Automation. Switching Routing and Wireless Essentials 23 February 2026. Course completions.

Languages

Bahasa Malaysia native. English professional working proficiency.