



Muhammad Husayn Irfan bin Mohammad Noor

Avionics Engineering Graduate | Freelance Developer | AI/ML Enthusiast

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SUMMARY

Graduate of University of Kuala Lumpur Malaysian Institute of Aviation Technology (MIAT) (graduation year: 2025) with over 2 years of experience crafting user-friendly Android applications using Android Studio, Firebase, Android SDK, and databases. Gained valuable technical skills of aircraft maintenance during a 4-month internship at the Malaysian Flying Academy (March 2022 - July 2022) and completed 24-weeks of internship at CAE Kuala Lumpur.

WORK EXPERIENCE

PROTÉGÉ Simulator Support Engineer

August 2025 – Present

PWN Excellence Sdn. Bhd., Shah Alam, Malaysia

- Provided real-time support for crews during simulator sessions.
- Performed Qualification Test Guide (QTG) and Preventive Maintenance (PM)
- Built battery voltage monitoring system with IoT implementation.
- Performed & PIC for Subjective Test Guide (STG) and involved in several Simulator on Ground (SOG).

Apprentice Simulator Technician

July 2024 – January 2025

CAE KUALA LUMPUR, Sepang, Malaysia

- Provided real-time support for crews during simulator sessions.
- Assisted in troubleshooting DR's (Deficiency Raised) or casualties during simulator sessions, performing Qualification Test Guide (QTG), Preventive Maintenance (PM), updating Navigation Database (NDB) and visual database.
- Developed software from debugged script to reduce redundancy and time during troubleshooting. (Batch)
- Involved in Subjective Test Guide (STG) and involved in several Simulator on Ground (SOG).

Freelance Mobile App Developer (Android)

August 2022 - Present

Swiftly, Malaysia

- Offer mobile applications (Android) development on demand service, with various types of applications such as semi-medical devices, ML (TF Lite) based application and management system at Swiftly.

Internship Trainee

March 2022 – July 2022

Malaysian Flying Academy (MFA), Batu Berendam, Melaka

- Technical Control, Bonded Store, Aircraft Maintenance (Piper Archer, Archer TX and Seminole).

EDUCATION

Bachelor of Aircraft Engineering Technology in Avionics

August 2022 – January 2025

Universiti Kuala Lumpur Malaysian Institute of Aviation Technology (MIAT), Sepang

CGPA: 3.32

Diploma in Engineering Technology in Avionics Maintenance

July 2019 - July 2022

Universiti Kuala Lumpur Malaysian Institute of Aviation Technology (MIAT), Sepang

CGPA: 3.75

CERTIFICATES

- IBM AI Developer (IBM) | [CERTIFICATES](#)
- PowerShell for Automating Administration (Packt) | [CERTIFICATES](#)
- Introduction to Networking and Storage (IBM) | [CERTIFICATES](#)
- Mobile Development and Javascript | [CERTIFICATES](#)

SKILLS

Software/Tools

Android Studio, VS Code, CAE Software (DB Manager, ITMS, PVT, Option Utilities), Arduino IDE, Windsurf IDE

Programming Language

Java, Python, JavaScript, HTML, PowerShell, SQL, C++

Databases

Postgresql, Milvus, RoomDB

Firebase

Realtime Database, Authentication, Cloud Storage, Firebase SDKs

API	FastAPI, Flask
Cloud	Oracle Cloud, VastAI (GPU Cloud On-Demand)
AI/ML	Unsloth, Huggingface, Ollama, Cloud Inference, GenAI LLM (Mistral, Qwen2.5, Llama4), NLTK, RAG (GraphRAG, LightRAG, Morphik, Langchain, Langgraph)
Hardware	Arduino Board, ESP
Interpersonal	Time Management, Communication, Leadership
Languages	Bahasa Melayu, English

PROJECTS

Brainynotes – Document Handler powered by LLM. (GRAPH RAG) – NEXT.js, REST APIs, FastAPI, 2025

- Chat with notes, powered by LLM (Llama4).
- Document rewriter features, powered by parallel LLM agents for handling big documents, context understanding and keyword generation for rich chunks retrieval.
- Utilized Morphik as RAG frameworks and PostgreSQL for database with vector extension.
- Inference provider: Fireworks AI.
- Deployed full-stack architecture on Oracle Cloud Infrastructure (OCI) compute instances.

Smart Lamp with Adaptive Power Management – Final Project Embedded System – C++, ESP32 2024

- USB Lamp with adaptive power management by having 2 system operations.
- The project gathered a 1-week of watt-hour data usage to identify threshold of abnormal operations.
- Utilized motion sensor for identifying user's presence.
- The project managed power consumption by having 2 systems, which were normal and abnormal operations handling.

Improvised Script for Resetting DSP 0 on IO4 CPPDM – Internship CAE 2024

- Batch script improvised after debugging the current script to reset DSP 0, which was run due to recurrent issues with IO4 DSP 0.
- Previous methods were inefficient due to redundant procedures and outdated or non-functional scripts that were no longer available.

License Plate Recognizer – Android Studio, Java, Text Recognition (ML Kit), Firebase 2023

- Utilized by law/authority to check registered license plate.
- Database utilized were Firebase Realtime Database.
- Built using Android Studio and Java.
- For text recognition, the project utilized Google ML Kit.

COMMUNITY

- **Morphik Documentation & Redis Setup in Early Development – morphik.ai**
Contributed to PostgreSQL vector extension documentation by testing the Linux setup process and identifying improvements. Implemented a robust Redis connection strategy that prioritizes direct connections and automatically falls back to Docker to ensure reliable system startup.

AWARDS AND ACKNOWLEDGEMENT



IBM AI Developer Professional Certificate

Issued by Coursera

Authorized by IBM



Building Generative AI-Powered Applications with Python

Issued by Coursera

Authorized by IBM

REFERENCES

Firuz Ashrani binti Hapiz | Specialist Avionics Section, UniKL MIAT | firuzashrani@unikl.edu.my
Ezri Ramli | Technical Manager, CAE Kuala Lumpur | ezri.ramli@cae.com