

FERNADO GEORGE ANAK MANI

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PROFESSIONAL SUMMARY

Final-year Computer Science (Data Science) student at Universiti Malaysia Sabah (CGPA 3.75/4.00) with hands-on experience building and deploying machine learning, deep learning, computer vision, NLP, and LLM/RAG pipelines through a six-month AI/ML Development internship at Breakfast Byte Sdn. Bhd. Available for full-time employment upon graduation in November 2026.

TECHNICAL SKILLS

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

AI, ML & Data: Machine Learning, Deep Learning, Computer Vision, NLP, LLMs, RAG, Feature Engineering, Data Analysis, Power BI

Frameworks & Tools: PyTorch, TensorFlow, OpenAI API, Gemini API, Ollama, FAISS, BM25, Gradio, OpenCV, EasyOCR, LangGraph, CrewAI, MLflow

APIs, Web & Testing: FastAPI, React, Vite, Node.js, Tailwind CSS, pytest, Postman, Git, GitHub Actions (CI/CD)

Databases & Cloud: MongoDB, MySQL, SQLite, SQLAlchemy, AWS (ECS, ECR, S3), Docker, Kubernetes (Minikube)

PROFESSIONAL EXPERIENCE

Breakfast Byte Sdn. Bhd. | AI/ML Development Intern | Kuching, Sarawak | Mar 2026 – Aug 2026

- Contributed to the enterprise AI chatbot platform redesign (KI Konnekt) for a German client, implementing model routing, retrieval pipelines, state management, UI components, regression testing, and technical documentation.
- Architected and built the computer vision car wash monitoring pipeline, processing 68 video sessions (95,270 frames) into structured vehicle-visit records via session detection, license-plate Optical Character Recognition (OCR), classification, and wash-action recognition.
- Trained ConvNeXtV2 action classifiers on 17,451 cropped samples, increasing validation macro F1 from 0.48 to 0.52 and eliminating 84% of short false segments via temporal smoothing algorithms.
- Automated end-to-end daily performance reporting on AWS using Docker, Amazon ECR, Amazon ECS, Amazon S3, and GitHub Actions CI/CD to generate client-ready CSV analytical reports.

EDUCATION

Universiti Malaysia Sabah | BCompSc (Data Science) with Honours | 2022 – Nov 2026 (Expected)

- Current CGPA: 3.75 / 4.00 (Dean's List) | Expected Graduation: 30 November 2026

Sarawak Matriculation College | Matriculation Certificate (Science Module II) | 2021 – 2022

- CGPA: 4.00 / 4.00 | Best Computer Science Student Award

SELECTED PROJECTS & ACHIEVEMENTS

Multimodal Emotion Recognition | Final Year Project | Best Research Award 2026 | 2025 – 2026

- Conducted comparative analysis of contextual and statistical fusion strategies for robust multimodal emotion recognition combining speech, visual, and text features.
- Developed deep learning architectures using WavLM, DINOv2, ModernBERT, and Bi-GRU under Gaussian noise and missing-modality scenarios, attaining a 71.6% F1-score with ensemble learning.

KinaVis – AI Medical Scribe | Gold Medal – Festival Idea Sabah 2025 | 2025

- Architected AI clinical documentation system integrating Google Speech-to-Text, Gemini 2.5 Pro, and Retrieval-Augmented Generation (RAG) with all-MiniLM-L6-v2 vector embeddings.
- Demonstrated reduction in documentation time by 3 to 4 hours per day and cut administrative overhead by 30% during prototype trials.

MatchKami – AI School-NGO Matching Platform | 2nd Prize – JomHack Varsity Challenge 2025 | 2025

- Engineered an AI-powered matching system connecting under-resourced schools with verified NGOs and donors via smart need-matching algorithms and a Telegram chatbot interface.

HydroGrid Sarawak – Renewable Energy & Hydrogen Intelligence Platform | GitHub | 2026

- Engineered end-to-end telemetry platform ingesting live Open-Meteo data into a PostgreSQL star-schema warehouse with DuckDB OLAP layer, n8n orchestration, and MLflow experiment tracking.
- Trained LightGBM inflow forecasting and Isolation Forest anomaly detection models served via FastAPI; built LangGraph self-correcting SQL agent and CrewAI strategic panel with a Streamlit SCADA command center; containerized via Docker Compose and deployed on Kubernetes.

LEADERSHIP & CO-CURRICULAR ACTIVITIES

PMFKI Student Association | Head of Academic and Career Affairs | 2023 – 2024

- Directed academic workshops and career development initiatives for undergraduate computer science students.

Hackathon Team Lead & Developer | 4+ Hackathons (MarineHack, JomHack) | 2023 – 2025

- Led multi-disciplinary teams across 4+ hackathons during 48-hour sprints; managed architecture, task delegation, development, and pitching, securing 1 Gold Medal and 1 Second Prize.