CALVIN JEE MENG YAU

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SUMMARY

Final-year Artificial Intelligence undergraduate with production-grade engineering experience in **Cloud Computing (AWS/GCP)**, **LLM Integration**, and **Computer Vision**. Proven track record of deploying scalable AI solutions, including automated document processing and fraud detection systems. Currently developing hybrid deep learning models for **real-time health analytics**, optimizing for edge deployment as Final Year Project. Eager to leverage skills in **Generative AI** and **Data Pipelines** to deliver interpretable medical insights at N1.Healthcare.

TECHNICAL SKILLS

- **Programming:** Python, Java, SQL, HTML, CSS
- **AI & Machine Learning**: TensorFlow, TensorFlow Lite (TFLite), Keras, LightGBM, Scikit-learn, Computer Vision, OCR.
- **GenAI & LLMs:** LLM Integration (Claude/GPT), RAG Principles, Prompt Engineering.
- **Cloud & DevOps:** AWS (S3, EC2), Google Cloud Platform (App Engine, VM), Git, DVC (Data Version Control).
- **Web Frameworks:** Vue.js, React, Flutter.

EDUCATION

University of Malaya (Kuala Lumpur, Malaysia) — Oct 2022 - Present
Bachelor of Computer Science (Artificial Intelligence) — Current CGPA: 3.56/4.00
Expected Graduation: March 2026

Kolej Matrikulasi Melaka (Melaka, Malaysia) — July 2021 - May 2022
Physical Science — CGPA: 4.00/4.00

WORKING EXPERIENCE

Gamer2Gamer Sdn Bhd (Kuala Lumpur, Malaysia) - AI Engineer (Internship) — July 2024 - Jan 2025

- **LLM & Document Processing:** Engineered a full-stack RFI (Request For Information) Generator, integrating **Claude API (LLM)** and **OCR** to automate the extraction of unstructured data from complex documents, significantly reducing manual processing time.
- **Fraud Detection at Scale:** Developed and deployed production-grade **Identity Verification (eKYC)** models using LightGBM and AWS, optimizing for high-volume fraud detection.
- **Generative AI Pipeline:** Designed AI-generated Fake Face Detection Models (Versions 7.0–8.0) by orchestrating **Stable Diffusion** and **Flux** on GCP VMs to generate synthetic training data, managing version control via **DVC**.
- **Computer Vision Optimization:** Iteratively improved Moire Detection Models (AUC 0.74) for screen capture identification by implementing FFT augmentation and hyperparameter tuning to reduce false positives.

YTL AI Labs | Remote / Kuala Lumpur- AI Data Annotator — July2025 – Dec 2025

- **LLM Fine-Tuning Support:** Contributed to the training pipeline of 'ILMU' (Sovereign LLM) by performing high-quality data annotation and logical consistency checks.
- **Data Quality Assurance:** Validated Multiple-Choice Questions (MCQs) and performed OCR validation to correct text extraction errors, ensuring high-fidelity datasets for model training.

PROJECTS

Sleep Anomaly Detection System (SADS) | Edge-AI Healthcare Framework ***Final Year Project*** **| Github Repo**

March 2025 - Jan 2026

- **Designed** a Hybrid System for real-time sleep anomaly detection on edge devices, combining a Quantized CNN-LSTM Autoencoder with deterministic clinical guardrails to ensure 100% safety compliance.
- **Achieved Extreme Model Compression (157.2 KB)** and ultra-low latency using TensorFlow Lite (TFLite) Quantization, enabling deployment on resource-constrained consumer wearables.
- **Investigated the effect of "Domain Shift" & Data Scarcity** by engineering a Sliding Window Augmentation pipeline, expanding the training dataset by 33x (41k to 1.3M samples) to bridge the gap between research-grade (64Hz) and consumer-grade (1Hz) sensor data.
- **Stakeholder Interpretability:** Produced automated reporting tools (trend plots, anomaly overlays) to translate complex model outputs into interpretable insights for non-ML stakeholders.

IntelliFlix | AI-Powered Semantic Search & Agentic Platform *Tech Stack: Python, Gemini Pro, ChromaDB, RAG, Streamlit, CI/CD*

- **Designed a Context-Aware RAG Pipeline:** Built a robust retrieval system using **ChromaDB** (Vector Search) and **Gemini Pro** to synthesize answers from messy, **unstructured datasets** (raw text reviews), mirroring the challenges of processing clinical notes.
- **Developed an Autonomous Agentic System:** Designed a multi-step reasoning agent using **Gemini Pro**, capable of decomposing complex queries (e.g., "Find movies like Inception but with less violence") into retrieval, filtering, and synthesis tasks without human intervention.
- **Implemented "Explainable AI" Features:** Integrated a citation and reasoning layer that forces the model to reference specific data points for every recommendation, ensuring the **system trust and auditability** required for sensitive decision-making environments.
- **Developed a Data Ingestion ETL:** Created a Python-based preprocessing pipeline to clean and normalize "noisy" raw text data before embedding, optimizing retrieval precision and handling data inconsistencies effectively.

LEADERSHIP & ACTIVITIES

- ★ Vice Director - Dean's Cup Faculty of Computer Science Universiti Malaya
  - Led over 50 committee members from various departments for a 3-day faculty-wide sports event with over 300 participants
- ★ Student Facilitator - 10th Residential College University of Malaya 2025
  - Planned and executed activities for 420 new students in 10th residential college throughout orientation week
- ★ Keeperku- Zoo Negara Malaysia
  - Contributed to wildlife conservation program through 42 hours of volunteer work

SPOKEN LANGUAGES

Mandarin (Native), English (Professional - MUET Band 5), Malay (Conversational), Spanish (Basic)

REFERENCES

Ong Jia Chong- (jia.chong@g2g.com)- (Internship Mentor) AI Engineer, Gamer2Gamer Sdn Bhd