Marcus Ong

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EDUCATION

- **Coventry University (INTI International College Penang)** — Penang, Malaysia
  Bachelor's of Computer Science. (First Class Honours) WAM : 85.4 — *Graduation Date : Aug 2025*
  - Final Year Project : *Redefining Personal Knowledge Bases with RAG*
    * Highest Graded Final-Year Project ; Best Presenter Award
  - Winner, IBM Bootcamp 2024, Generative AI Track
  - 1st Runner-Up, Huawei Intelligent World 2030 AI/ML Track

- **INTI International College Penang** — Penang, Malaysia
  Diploma in Computer Science. CGPA: 3.87 — *Graduation Date : Apr 2023*
  - Recipient of the Dean's List (4 times), President's List, and INTI High Achievers' Award (2 times).

EXPERIENCE

- **Analytics Software Engineer Intern – *Keysight Technologies*** — Dec 2024 – Apr 2025
  - Developed and deployed an anomaly detection PoC using MLflow, a serverless Postgres database, AWS, and Docker in a multi-containerized architecture, leveraging multiple ML models to enable rapid prototyping and feedback-driven iterations, while establishing a long-term, scalable data collection infrastructure with a strong focus on cost efficiency.
  - Drove AI/ML strategy by designing a roadmap focused on immediate results, long-term growth, and resource efficiency to align ML initiatives with business goals.
  - Collaborating across multiple cross-regional teams within a large-scale, agile-driven project while seamlessly transitioning between meetings and focused work.

- **ML Research Assistant – *Dr.Fakhitah Ridzuan*** — Jun 2023 – Dec 2023
  - Improved model performance by 39% by applying image augmentation techniques using Keras on a dataset of over 87,000 plant disease images, evaluated through multiple metrics.
  - Engaged with a Ph.D. student's orthodontics research, gaining insight into their thesis and discussing potential machine learning workflows.

- **Site IT Intern – *Plexus Corp*** — Jan 2023 – Mar 2023
  - Collaborated with IT teams to update software on over 2,000 computers, addressing security concerns.
  - Increased fluency in IT Service Management processes using ServiceNow, including incident, problem, and change management.

RESEARCH AND PUBLICATIONS

- **Ong, G.Y.** & Mohanan, V. (2025). **Enhancing Personal Knowledge Management by Mitigating LLM Hallucinations with Retrieval-Augmented Generation**. In :*CITIC, International Conference on Computer, Information Technology and Intelligent Computing*

- **Ong, G.Y.**, Abdullah, N., Ridzuan, F., Mustafa, W. A., & Alzubaidi, L. H.(2023). **Enhancing Data Quality in Image Pre-processing: A Case Study on Plant Disease Classification**. In :*ICTEASD*, IEEE. doi:10.1109/icteasd57136.2023.10584873.

CERTIFICATIONS

- **Cloud Machine Learning Engineering and MLOps** — May 2024
  Duke University — *Online Course*

- **SAS - Academic Specialisation in Data Analytics** — Feb 2024
  INTI International College Penang

SKILLS

Technical: Python, Git, Java, C++, LlamaIndex, R, Pandas, REST API, Matplotlib, Seaborn, Keras, SAS, Scikit-Learn, SQL, Flask, Tensorflow, Docker, MLFlow, AWS, Langchain
Languages: English, Malay, Mandarin