

Yen Hong Wong

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EDUCATION

- **Multimedia University** Cyberjaya, Malaysia
Bachelor of Computer Science (Hons.), Data Science; CGPA: 3.95/4.00
Nov. 2022 – Present
 - Awarded with a merit scholarship for outstanding foundation result.
- **Multimedia University** Cyberjaya, Malaysia
Foundation in Information Technology; CGPA: 3.94/4.00
Jul. 2021 – Sep. 2022

PUBLICATIONS

- **Yen-Hong Wong***, Lai-Kuan Wong. AesCrop: Aesthetic-driven Cropping Guided by Composition *In Proceedings of the Mobile Intelligent Photography & Imaging (MIPI) Workshop at the International Conference on Computer Vision (ICCV), Honolulu, Hawaii, 2025.*

WORK EXPERIENCE

- **Grab** Petaling Jaya, Malaysia
Machine Learning Engineer Intern
Jul. 2025 – Present
 - Grab is a Southeast Asian superapp offering ride-hailing, food and grocery delivery, digital payments, and financial services through a single mobile platform serving millions across the region.
 - Spearheaded distributed training of the ETA model using Ray Train and Ray Data in a multi-node setup, achieving a 3× speedup and 97% GPU utilization.
 - Scaled training of a metric forecasting model across multiple nodes using Ray Train and Ray Data, incorporating model sharding and activation checkpointing to optimize memory efficiency, resulting in approximately 80% reduction in memory usage.
 - Developed parallel multi-architecture support for container image building in the ML platform, enhancing compatibility and deployment flexibility.
- **MoneyLion** Kuala Lumpur, Malaysia
Data Science Intern
Jul. 2024 – Oct. 2024
 - MoneyLion is a U.S.-based financial technology company offering digital banking, investment, and lending services designed to help users manage their personal finances.
 - Enhanced the performance of the transaction categorizer in long-tail categories.
 - Designed and implemented an on-demand rule injection pipeline that leverages clustering algorithms, large language models, and graph traversal techniques to auto-generate deterministic rules, facilitating the labeling of ground truths and improving model accuracy.
 - Generated 582 deterministic rules that curated approximately 14,000 ground truths in long-tail categories, increasing model's accuracy by 30% in categorizing these new ground truths.
 - Optimized the execution time of a Metaflow pipeline by 4x, reducing processing time from 8 minutes to 2 minutes by enhancing query efficiency and leveraging parallel processing.
 - Implemented a DAG workflow in Airflow to run a dbt script that refreshes a Snowflake table weekly, ensuring data freshness.

PROFESSIONAL DEVELOPMENT

- **International Conference on Computer Vision (ICCV) 2025** Honolulu, Hawaii
 - Received a scholarship through the Broadening Participation Program to attend the five-day conference as one of the few undergraduate authors.
 - Participated in tutorials, workshops, oral presentations, keynotes, and poster sessions covering a wide range of cutting-edge computer vision research.
- **Oxford Machine Learning Summer School (OxML) 2025** Oxford, United Kingdom
 - Awarded a student scholarship to attend the four-day summer school in the MLx Representation Learning & Generative AI Track at the University of Oxford's Mathematical Institute as one of the few undergraduate participants.
 - Explored topics such as *Representation Learning in Robotics, Time Series, and Computer Vision, Large Language Models, and Generative Models.*

PROJECTS

• MakanLah

- Local food education app featuring MLOps pipelines.
- Trained a food classification model using MobileNetV2 with Outlier Exposure, achieving 90% accuracy on in-distribution examples and 92% accuracy on differentiating out-of-distribution examples.
- Collected and curated a dataset of 30 food categories, with an average of 70 high-quality images per class.
- Developed a script to generate synthetic adversarial examples, improving model robustness.
- Built an end-to-end MLOps pipeline on Kubernetes (EKS), including a model registry (MLflow), distributed training cluster (Ray Train), serving infrastructure (Ray Serve), and workflow orchestrator (Metaflow).
- Implemented a feedback loop system to automatically trigger model retraining based on user input, ensuring continuous improvement.
- Designed and implemented the MakanLah App and MakanLah API.
- **Tech Stack:** PyTorch, OpenCV, Terraform, AWS EKS, Ray, Metaflow, AWS S3, AWS RDS, React.js, Node.js, Express.js, JavaScript, Python

• What If I Never Brick

- Codeforces optimal rating calculator based on ideal performance, with 400+ upvotes on Codeforces.
- Implemented a greedy algorithm along with the ELO rating algorithms to compute the optimal rating.
- Designed and implemented an interface to allow users to interact with the application.
- **Tech Stack:** React.js, Redux, JavaScript, HTML, CSS, Git

AWARDS

- **Codeforces:** Ranked top 4% of users on the world's largest competitive programming platform.
- **Meta Hacker Cup 2023:** Secured top 4% in Round 1 (824/20,324).
- **Final Year Project:** Received the Best Project Award in Data Science.
- **Programming League National 2024:** Secured 1st place among 70+ teams.
- **Programming League National 2023:** Earned 3rd place among 60+ teams.
- **CodeNecton 2022:** Achieved 2nd place among 100+ teams.
- **Monash Coding League 2024:** Secured 1st place among 80+ teams.
- **Monash Coding League 2023:** Won 1st place among 70+ teams.
- **ImagineHack 2024:** Earned Best Innovation Award.
- **Data Science Digital Race 2024:** Won 1st place among 100+ teams.

TECHNICAL SKILLS

- **Languages and frameworks:** Python (PyTorch, TensorFlow, Ray, Metaflow, Pandas, FastAPI, OpenCV), JavaScript (TypeScript, React.js, Redux, Next.js, React Native, Express.js), HTML, CSS, MongoDB, PostgreSQL, Redis, C++, Java
- **CI/CD, Cloud & Tools:** AWS, Terraform, Kubernetes, Docker, GitHub, GitHub Actions

VOLUNTEERING

- **Programming League National 2025:** Workshop Speaker.
- **CodeNecton 2024:** Advisor and Problem Author.
- **CodeNecton 2023:** Competition Lead, Problem Author, and Workshop Speaker.
- **IT Society 2023:** Technical Team.
- **Hackerspace MMU:** Active Member.