

Ma Runze

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Education

Monash University Malaysia *Master of Artificial Intelligence*

July 2024 – Sept 2026

Huazhong University of Science and Technology *B.eng. in Automaiton*

Sept 2020 – June 2024

Publicaitons

- P. Wu, **R. Ma** and T. T. Toe, "Stacking-Enhanced Bagging Ensemble Learning for Breast Cancer Classification with CNN," 2023 3rd International Conference on Electronic Engineering (ICEEM), Menouf, Egypt, 2023, pp. 1-6, doi: 10.1109/ICEEM58740.2023.10319517.

Experience

Antalya Tech *AI Product Operator & Developer*

Mar 2024 – Present

- Developed the IELTS writing AI tool **IELTS Master**; designed and iterated **prompt templates**.
- Created **SQL** reports to monitor user growth, retention, and conversion; informed feature and content strategies.
- Analyzed **user segmentation** to identify patterns among high-repeat users, supporting community and marketing.

Juxin Financial Consulting Co., Ltd. *Data Analysis Intern*

Nov 2024 – Feb 2025

- Reconciled client bank and ledger records using **SQL**; supported financial reports via **Excel** pivots and formulas.
- Applied **large language models** and **OCR** to automate invoice classification and summary generation.
- Built a lightweight **Power BI** dashboard powered by **SQL**-generated data sources for client-level financial analysis.

Projects

Dual-Modal Vehicle Detection on UAV Platform *Project Lead*

Nov 2023 – June 2024

- Built a vehicle detection system using **YOLOv5** and a custom **dual-modal adaptive fusion** module.
- Achieved near-**SOTA** results on the **DroneVehicle** dataset; completed simulation testing and prepared for embedding.

AI Ethics Research, North Carolina State University *Core Member*

Jul. 2023 – Aug. 2023

- Explored ethical issues in **AI applications**; authored a report on the implications of **autonomous weapons**.

Pain Estimation via Spatio-Temporal Neural Networks *Project Lead*

Feb 2023 – July 2023

- Applied spatio-temporal models to estimate pain levels from the **UNBC-McMaster** dataset.
- Used **25-fold cross-validation** for robust evaluation. Multiple architectures are utilized to identify the best design.

Speed Estimation and PI Calibration on STM32 *Project Lead*

Mar 2023 – June 2023

- Improved speed estimation using **Luenberger observers** and **PLL**; optimized **PI controller** performance.
- Simulated systems in **Simulink**, deployed control algorithms to **STM32**, and implemented **serial communication** for real-time monitoring. Familiar with **CORDIC**, **FOC**, and **PSO**-based control strategies.

Breast Cancer Classification via Ensemble Learning *Core Member*

Nov 2022 – Feb 2023

- Designed an ensemble **MLP** classifier; enhanced robustness using **VAE**-based data augmentation.
- Applied **feature selection** and metrics like **AUC** and **recall** to reduce false negatives and improve interpretability.

AI Training Camp for University Students *Core Member*

July 2022 – Aug 2022

- Studied medical image segmentation using **U-Net** and action detection in videos based on **Transformer** architectures.
- Gained in-depth knowledge of video instance segmentation algorithms and person re-identification techniques.
- Awarded a completion certificate by the Center for China-Foreign People-to-People Exchange, Ministry of Education.

Awards & Honors

Third Prize, Reanti Robotics Developer Competition

July 2023

Science and Innovation Scholarship (1 out of 30)

Sept 2022

First Prize (Top 5%), MathorCup National University Mathematical Modeling Challenge

May 2022

Honorable Mention (Top 20%), COMAP Mathematical Contest in Modeling (MCM)

Feb 2022

Social Welfare Scholarship (1 out of 30)

Sept 2021

Skills

- Programming:** Python > C = Matlab > Java > C++
- Software:** Office, SQL, Power BI, Figma, Git
- Languages:** Mandarin Chinese (Native); English (IELTS 6.5); Arabic (Basic spelling)