Ju Lin

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Education

Imperial College London 2025 – 2026

- MSc in Applied Computational Science and Engineering
- Student Academic Representative
- Mentor for Ark Academy Wembley

The Hong Kong Polytechnic University 2021 – 2025

- BEng (HONS) in Aviation Engineering (ranked 8/55)

Selected Publications

[Paper] **Framework for Low-Cost Indoor Smartphone Camera-based Localization Using Spherical Panorama and BIM** 2025

M. J. L. Lee, ***Ju Lin***, G. Zhang, L.-T. Hsu

IEEE Sensors Journal.
DOI: 10.1109/JSEN.2025.3613996

[Paper] **Exploring the feasibility of automated data standardization using large language models for seamless positioning** 2024

M. J. L. Lee, ***Ju Lin***, L.-T. Hsu

International Conference on Indoor Positioning and Indoor Navigation (IPIN), 2024.
DOI: 10.1109/IPIN62893.2024.10786123.

[GitHub] **Enhancing Positioning Accessibility through Large Language Model-Driven Data Standardization** TBC

M. J. L. Lee, ***Ju Lin***, X. Bai, L.-T. Hsu

Submitted to Applied Soft Computing Journal. In Major Revision state.

Selected Experience

Graduate Research Assistant Nov 2025 – Present

Department of Earth Science & Engineering, Imperial College London – London, UK

- Research under Energy Futures Lab; Supervised by Professor Anna Korre.
- Development and maintenance of the carbon calculator project code base to improve scalability and long-term maintainability.
- Research on the scientific validity of the calculator and its adaptation to the Imperial College environment.

CTO & Co-Founder Jan 2025 – Present

EmoBay Limited (PolyVentures Backed) – Kowloon, Hong Kong

- Solely architected an end-to-end solution in web (React/NextJS), mobile (Native Swift), database (Neon/Supabase), and server platforms (Vercel/Azure/Cloudflare/GCP), integrating LLM fine-tuning, RAG.
- Delivered scalable infrastructure for over **740 users and 18,200 messages**.
- Featured in several media outlets, including Forbes, StartUs Insights, TechRound UK, and Ming Pao.

Research Intern Dec 2024 – Jan 2025

Intelligent Positioning and Navigation Laboratory, PolyU – Kowloon, Hong Kong

- Collected and pre-processed raw data from various positioning sensors and drones.
- Worked closely with the research team to develop and train machine learning models.
- Analyzed data to identify patterns, trends, and insights.
- Prepared detailed reports and presentations on findings and project progress.

Research & Development Intern Jul 2024 – Aug 2024
Ghent University – Ghent, Belgium

- Interned under Ghent University Research Group Sustainable Thermo-Fluid Energy Systems (STFES); Supervised by Professor Michel De Paepe and Professor Steven lecompte.
- Worked on an experimental setup called the "two-phase injection compressor".
- Experimented on the performance of a compressor based on the conditions of the working fluid at the intake and injection ports.

Research Intern Mar 2024 – Aug 2024
LifeSparrow Solutions Limited – New Territories, Hong Kong

- Assisted in developing AI models for drone imagery.
- Participated in AR/VR simulations for enhancing AI training processes.
- Crafted intuitive UI/UX for web interfaces that interact with drone data.
- Collaborated on diverse projects, gaining a holistic experience across various tech spectrums.

Deputy Director, Powertrain Lead & Driver Jul 2023 – Aug 2024
Powertrain Engineer Sep 2022 – Jul 2023
PolyU E-Formula Racing Team – Kowloon, Hong Kong

- Supervised the development of the 6th generation of racing car.
- PIC of the 06E racing car's powertrain system.
- Participated in the Formula Student 2023 at Silverstone, UK, and Formula Student Electric China 2023 at Hefei, China.

Selected Projects

Cargo Operation Safety Detection & Alert System Oct 2024 – Dec 2024
POC Project with Airport Authority Hong Kong

An agentic framework, integrating YOLO and LLMs, has been streamlined and installed to automate HKIA's daily cargo operation safety detection.

[GitHub] **FusionFly: A Scalable Open-Source Framework for AI-Powered Positioning Data Standardization** Sep 2024 – May 2025
Intelligent Positioning and Navigation Laboratory

Capstone Project supervised by Prof. Li-Ta Hsu.

Research and Development of AI-aided GNSS Software Receiver Sep 2022 – Sep 2023
Undergraduate Research and Innovation Scheme

Individual research project supervised by Prof. Li-Ta Hsu, and co-supervised by Dr. Guohao Zhang.
Research Grant: HK$ 30,000 (approx. US$ 3,861)
Scholarship: HK$ 10,000 (approx. US$ 1,287)

Selected Awards

UK AI Agent Hackathon – Finalist Nov 2025
Imperial College Learning Analytics Hackathon – Winner Nov 2025
Faculty of Engineering Dean's Honours List Sep 2025
Formula Student Electric China 2023 – 3rd Prize Nov 2023
Undergraduate Research and Innovation Scheme (URIS) Scholarship Oct 2023
Mathematical Contest in Modeling (MCM) – Successful Participant Jun 2023
HKSAR Government Scholarship Fund Apr 2023
Guangdong Geography Olympiad – First Prize May 2017

Languages

English (Fluent, IELTS Band 8), Cantonese (Native), Mandarin (Native), Teochew (Native)