

Hao-Tian Lu 呂顥天

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Academic Experiences

Research Assistant of Dr. Jie-Fan Chang Lab

Department of Computer Science & Information Engineering, National Taiwan University

Taipei, Taiwan

September 2022 - Present

- Advanced AI research for medical image analysis, specializing in neuroimaging scans.
- XAI method design & research for clinical data interpretation.
- Developed robust medical image segmentation approach for clinical edge computing.

Research Student of MRI Lab

Institute of Biomedical Sciences (IBMS), Academia Sinica

Taipei, Taiwan

May 2023 - May 2025

- Proficiently conducted data science and in-depth analysis of magnetic resonance imaging (MRI) data, with a specific focus on brain connectome research.
- Conducted research in Huntington's functional connectivity of cerebral glucose metabolism as a biomarker.
- Developed cutting-edge analysis software for DGE MRI, rs-fMRI, CEST MRI and other modalities.
- Designed computing structure for data science research in lab.

Lecture Designer

Ministry of Education High School AI Course Program

Taiwan (Hybrid)

August 2024 - January 2025

- Designed course structures and prepared instructional materials to enhance student learning outcomes.
- Contributed to computer science education research, focusing on innovative teaching methodologies.
- Associated with Department of Technology Application and Human Resource Development, NTNU.

Consultant & Lecturer

National Taiwan University Artificial Intelligence Research Club

Taiwan (Hybrid)

January 2024 - June 2024

- Guided several mentees to build generative AI project.
- Professional mentoring on computer vision approach optimization.

Professional Experiences

Design Program Associate Manager

AIOTEK PTE. LTD.

Taipei, Taiwan

June 2025 - Present

- AI algorithm development for edge services, emphasizing lightweight optimization and scalability.
- Contributing to modular AI engine designs for seamless updates and cross-platform compatibility.
- Enhancing AIoT solutions through advanced research in secure real-time processing and model miniaturization.

Scientist Team of Personalization Cloud

Appier Inc.

Taipei, Taiwan

November 2023 - May 2025

- Feasibility research for generative AI methods & algorithms integration into marketing products.
- Conducted LLM research to support campaign algorithms and model training optimization to improve system performance and effectiveness.
- Recipient of the 2024 Highest Customer Value Award at Appier Labs Day for main research and development on a generative AI application, delivering impactful solutions that enhanced customer value. Transitioned to campaign algorithm research & development post-Oct. 2024.

Technology Consultant

Public Television Service Foundation

Taiwan (Hybrid)

June 2024 - October 2024

- Technical content reviews & program planning guidance.
- Provided expert opinions on matters related to artificial intelligence and privacy legislation.

Education

Taipei Digital Experimental High School (T-School) <i>Experimental Education</i>	Taipei City, Taiwan 2023 - 2026 (estimated graduation)
<ul style="list-style-type: none">• Previous Semester Overall GPA: 3.7 / 4.3• Student Representative of 2nd Student Union• Chairman of 3rd Student Union• Former Public Relations Manager of Art and Literature Club	
New Taipei Municipal Yonghe Junior High School <i>Gifted and Talented Science Program</i>	New Taipei City, Taiwan 2020 - 2023
<ul style="list-style-type: none">• Graduation Overall GPA: 4.0 / 4.3• Valedictorian of 53rd Graduates with Highest Achievements• Class President of Gifted and Talented Science Program• School President of Academic Year 2023	

Research Works

<ul style="list-style-type: none">• 校園速度偵測系統：應用 NodeMCU 與 OpenCV 作為 AI 物件辨識之研究 <i>Advised by Dr. Jie-Fan Chang, NTU CSIE</i> Campus Speed Detection System: A Study on AI Object Recognition Using NodeMCU and OpenCV	2019 - 2020
<ul style="list-style-type: none">• 以新建構之卷積神經網路對腦部核磁共振影像執行多發性硬化症之判讀 <i>Advised by Dr. Jie-Fan Chang, NTU CSIE</i> A High Scalability Method for MS Lesion Segmentation with FLAIR MRI on Embedded System Based on CNN	2020 - 2022
<ul style="list-style-type: none">• Analysis of ERP Signals in EEG using MTF and GAF for Deep Learning <i>Advised by Dr. Jie-Fan Chang, NTU CSIE</i>	2023 - 2024
<ul style="list-style-type: none">• DGE MRI of Metabolic Connectivity in Huntington’s Disease Mouse Models <i>Advised by Dr. Dennis W. Hwang & Dr. Yu-Wen Chen, Institute of Biomedical Sciences, Academia Sinica</i>	2023 - Present

Awards & Honors

<ul style="list-style-type: none">• Excellence Award of 2020 New Taipei City Science Fair Issued by Department of Education, New Taipei City Government	
<ul style="list-style-type: none">• Third Place of 62nd National Primary & High School Science Fair (NPHSSF) Issued by National Taiwan Science Education Center	
<ul style="list-style-type: none">• High Distinction Award of 2022 Young Talent Intelligence Technology Award Issued by National Taiwan Science Education Center, National Taiwan University Department of Electrical Engineering	
<ul style="list-style-type: none">• Fourth Award of 2024 Taiwan International Science Fair Issued by National Taiwan Science Education Center	
<ul style="list-style-type: none">• Outstanding Poster Award of 2024 Symposium of the Frontiers in Biomedical Magnetic Resonance Issued by Taiwan Magnetic Resonance Society	
<ul style="list-style-type: none">• Honorable Mention Award of 57 Taipei City Science Fair Issued by Department of Education, New Taipei City Government	
<ul style="list-style-type: none">• First Award & Highest Honor Award of Taiwan International Science Fair 2025 Selected as Taiwan delegation for Regeneron ISEF 2025	

Languages

- Mandarin, Taiwanese: Native Proficiency
- English: Professional Working Proficiency (TOEIC 800, Nov. 2019)
- Spanish: Limited Working Proficiency

Conferences & Fellowships

- **AI in Medical Imaging and AI Ethics**
Graduate Program Artificial Intelligence Special Lecture, Industry Academia Innovation School, NYCU
Invited talk / 16 Oct. 2024 / Hsinchu, Taiwan
- **Securing Trust: Ethical Governance in Championing Children Digital Rights**
Asia Pacific Regional Internet Governance Forum (APrIGF) 2024
Invited talk / 21 Aug. 2024 / Taipei, Taiwan
- **Asia Pacific School on Internet Governance (APSIG) 2024**
Fellow / 17-20 Aug. 2024 / Taipei, Taiwan
- **Connectivity Analysis of Glucose Metabolism in HD: A New Perspective Provided by DGE MRI**
2024 Symposium of the Frontiers in Biomedical Magnetic Resonance
Poster / 10-11 May 2024 / Taipei, Taiwan
- **AI Assembly - Data Sharing and Model Licensing Expert Workshop**
Taiwan Artificial Intelligence Consensus Collaborative Workshop
Invited discussant / 08 Dec. 2023 / Taipei, Taiwan
- **Artificial Intelligence Governance Meeting with Prof. Lawrence Lessig**
Invited discussant / 17 Sep. 2023 / Taipei, Taiwan

Additional Experiences

- Committee member of Taipei City Government Policy Advisory Committee (2025 - Present)
- Former committee member of Ministry of Education Advisory Committee (2024 - 2025)
- Volunteer of Open Culture Foundation and Judicial Reform Foundation (2022 - Present)
- Agenda Team of Hacks In Taiwan Conference (2023 - Present)
- Coordinator of COSCUP Open Education Track (2023 - 2024)
- Conference Streaming of COSCUP (2021)
- Technical Advisor of several open source projects and communities