呂栢頤 PO-YI (POY) LU

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PERSONAL INFORMATION

I am a fourth-year Ph. D. student at the Graduate Institute of Networking and Multimedia at National Taiwan University. I'm also the Associate Learner in CLLab, advised by Prof. Hsuan-Tien Lin. My research interests are *preference alignment*, *AI safety*, *interactive learning*, and *weakly-supervised learning*.

EDUCATION

National Taiwan University (NTU)   February 2020–Now
Ph.D., Graduate Institute of Networking and Multimedia

National Taiwan University (NTU)   September 2013–June 2015
M.S., Institute of Industrial Engineering

National ChengChi University (NCCU)   September 2009–June 2013
B.C., Department of Mathematical Science

PAPERS

- Hung-Chieh Fang, **Po-Yi Lu**, Hsuan-Tien Lin. Tackling Dimensional Collapse toward Comprehensive Universal Domain Adaptation, In *Proceedings of the International Conference on Machine Learning (ICML)*, July 2025.

- Tan-Ha Mai, Nai-Xuan Ye, Yu-Wei Kuan, **Po-Yi Lu**, and Hsuan-Tien Lin. The Unexplored Potential of Vision-Language Models for Generating Large-Scale Complementary-Label Learning Data. In *Proceedings of the Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, June 2025.

- **Po-Yi Lu**, Yi-Jie Cheng, Chun-Liang Li, Hsuan-Tien Lin. An Expanded Benchmark that Rediscovers and Affirms the Edge of Uncertainty Sampling for Active Learning in Tabular Datasets, *Transactions on Machine Learning Research (TMLR)*, May 2025. (**Reproducibility Certification**)

- Oscar Chew*, **Po-Yi Lu***, Jayden Lin, Hsuan-Tien Lin. Defending Text-to-image Diffusion Models: Surprising Efficacy of Textual Perturbations Against Backdoor Attacks, presented in the Dark Side of Generative AIs and Beyond Workshop @ ECCV, 2024.

- **Po-Yi Lu**, Chun-Liang Li, and Hsuan-Tien Lin. A more robust baseline for active learning by injecting randomness to uncertainty sampling, July 2023. presented in the AI and HCI Workshop @ ICML

- **Po-Yi, Lu** Demand planning based on user mobility behavior for wireless network capacity allocation, Master thesis, National Taiwan University, 2015

ACADEMIC SERVICES

- Assistant Program Chair: NeurIPS 2025

- Session chair: ACML 2024

- Reviewer: AISTATS 2024, ACML 2024, AISTATS 2025, NeurIPS D&B Track 2025

COMMUNITY SERVICES

- Organizer [AI Safety Taiwan group](#)

WORK EXPERIENCE

Chunghwa Telecom, Taipei, Taiwan
Researcher, Telecommunication Laboratories   May 2018–May 2021

- Principal Investigator, Smart Agriculture Management System. Reduce hundreds of IoT device reactive maintenance work hours by 23.2% by designing time series anomaly detection.
- Project Leader, Intelligent User Mobility System. Provide users' semantic geographic behaviour for 1968App, signal monitoring of Taiwan High Speed Rail and shopping mall crowd analysis by designing the multi-source data fusion mechanism.

Associate Researcher, Telecommunication Laboratories   December 2015–April 2018

- Customer Journey Analytics System. Reduce 20% customer service call quantity and 10% average hold time by utilizing XGBoost to predict the intention of customer' s incoming calling.

National Taiwan University, Taipei, Taiwan
Research Assistant, Legal Analytics Group host by Sieh-chuen Huang   August 2021–February 2023.

- Explainable Multi-Label Classification for Chinese Judgement Texts: Case Study For Drunk Driving Sentencing

Research Assistant, Statistical Mining Lab host by Argon Chen   September 2013–August 2015

- Demand Planning by Integrating Consumer Mobiliity Patterns for Service Supply Chain (II-III) (*MOST103-2221-E002-218-MY2*)

National ChengChi University, Taipei, Taiwan
Research Assistant, Operations Research Lab   September 2011–December 2012

- Mining of complication disease association rules in the National Health Insurance Research Database

TEACHING EXPERIENCE

National Taiwan University, Teaching Assistant

- Machine Learning (CSIE5043), Fall 2023, Lead the Bonus Track for the final project[1]
- Machine Learning (CSIE5043), Spring 2023, Head TA
- Linear Algebra and Its Applications (IE5034), Spring 2015, Grading homework and exams

Information Club, Chingshin Academy, Instructor   September 2020–December 2023

- Python programming language, Natural language processing with Transformers, Digital image processing and deep learning for computer vision

OTHER EXPERIENCE

- 2020 T-Brain E.SUN NLP AML detection competition: Rank 19/409 (5%)
- 2017 Taiwan Innotech Expo, Gold Medal Award
- 2015 Big Data Analytics for Semiconductor Manufacturing by TSMC, Honourable Mention Award

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[1] https://www.csie.ntu.edu.tw/~htlin/course/ml23fall/final/bonus.pdf