

Chan Hsu

Kaohsiung, Taiwan

Email: chanshsu@gmail.com / TEL: +886 910699550

Website: <https://chanshsu.github.io>

Updated on 2025/05/05

I am a doctoral student specializing in machine learning (ML), with particular emphasis on **causality** and **interpretability**. I also interested in applying ML to help make decisions in high-stakes domains like healthcare. I aim to pursue a Ph.D. to further innovate in machine learning and improve solutions to practical challenges in healthcare and other domains.

Education

National Sun Yat-sen University	<i>Kaohsiung, Taiwan</i>
Ph.D. student	<i>2022 - Present</i>
Advisor: Prof. Yihuang Kang	
<i>Research Interest: Statistical Machine Learning, Interpretability, Causality</i>	
National Sun Yat-sen University	<i>Kaohsiung, Taiwan</i>
M.S. in Information Systems	<i>2020 - 2022</i>
Advisor: Prof. Yihuang Kang	
<i>Thesis: Interpretable Representation Learning with Model-based Deep Rule Forest</i>	
National Sun Yat-sen University	<i>Kaohsiung, Taiwan</i>
B.B.A. in Information Management	<i>2016 - 2020</i>

Publications

Total Citations: 13 @[Google Scholar](#)

Journal Articles

- J1. Lee-Moay Lim, Ming-Yen Lin, **Chan Hsu**, Chantung Ku, Yi-Pei Chen, Yihuang Kang, Yi-Wen Chiu. (2025). Computer-Assisted Prescription of Erythropoiesis-Stimulating Agents (ESAs) in Patients Undergoing Maintenance Hemodialysis: A Randomized Clinical Trial for AI Model Selection. *JAMIA Open*.
- J2. Shih-Yi Chien, Shiao-Fang Chao, Yihuang Kang, **Chan Hsu**, Meng-Hsuan Yu, Chan-Tung Ku. (2022). Understanding Predictive Factors of Dementia for Older Adults: A Machine Learning Approach for Modeling Dementia Influencers. *International Journal of Human-Computer Studies (IJHCS)*.

Conference Proceedings

- C1. En-Qi Tseng, Pei-Cing Huang, **Chan Hsu**, Peng-Yi Wu, Chan-Tung Ku, and Yihuang Kang. (2024). CodEv: An Automated Grading Framework Leveraging Large Language Models for Consistent and Constructive Feedback. *IEEE International Conference on Big Data (BigData), WLLFM workshop*.
- C2. Chih-Yuan Li, Jun-Ting Wu, **Chan Hsu**, Ming-Yen Lin, Yihuang Kang. (2024). Understanding eGFR Trajectories and Kidney Function Decline via Large Multimodal Models. *IEEE International Conference on Multimedia Information Processing and Retrieval (MIPR), BDH workshop*.

-
- C3. **Chan Hsu**, Jun-Ting Wu, Yihuang Kang. (2024). Causal Rule Forest: Toward Interpretable and Precise Treatment Effect Estimation. *IEEE International Conference on Information Reuse and Integration for Data Science (IRI)*
 - C4. I-Ling Cheng, **Chan Hsu**, Pei-Ju Lee, Chan-Tung Ku, Yihuang Kang. (2024). Subgroup analysis via Model-based Rule Forest. *IEEE International Conference on Information Reuse and Integration for Data Science (IRI), AIHC workshop*.
 - C5. Hei-Liam Chow, **Chan Hsu**, Shih-Yi Chien. (2024). Psychosocial Determinants of Dementia Progression: Insights from Advanced Data Analytics using the Taiwan Longitudinal Study in Aging. *IEEE International Conference on Human-Machine Systems (ICHMS)*.
 - C6. **Chan Hsu**, Wei-Chun Huang, Jun-Ting Wu, Chih-Yuan Li, Yihuang Kang. (2023). Toward Transparent Sequence Models with Model-Based Tree Markov Model. *IEEE International Conference on Multimedia Information Processing and Retrieval (MIPR), BDH workshop*.
 - C7. **Chan Hsu**, Chan-Tung Ku, Yuwen Wang, Minchen Hsieh, Jun-Ting Wu, Yunhsiang Hsieh, PoFeng Chang, Yimin Lu, Yihuang Kang. (2023). A Teacher-Student Knowledge Distillation Framework for Enhanced Detection of Anomalous User Activity. *IEEE International Conference on Information Reuse and Integration for Data Science (IRI)*.
 - C8. **Chan Hsu**, Ching-Chih Tsao, Yu-Liang Weng, Cheng-Yi Tang, Yu-Wen Chang, Yihuang Kang, Shih-Yi Chien. (2022). A machine learning approach to model HRI research trends in 2010~ 2021. *ACM/IEEE International Conference on Human-Robot Interaction (HRI)*.

Experience

Kaohsiung Medical University

Kaohsiung, Taiwan

Research Assistant --

2021 - Present

supervised by Prof. Yi-Wen Chiu, Prof. Ming-Yen Lin, and Prof. Yi-Ting Lin

- Developed ML models for personalized treatment recommendation.
- Developed ML models for CKD caring.
- Analyzed multi-omics data.

National Sun Yat-sen University

Kaohsiung, Taiwan

Research Assistant -- supervised by Prof. Yihuang Kang

2020 - Present

- Developed interpretable causal ML model.
- Developed ML models for anomalous account activity detection.
- Developed human-in-the-loop ML framework.
- Built and maintained an MLOps platform based on Kubernetes for more than 100 users.

University of Pittsburgh Library Systems, East Asian Library

Pittsburgh, PA, US

Summer Intern -- supervised by Runxiao Zhu

2024

- Develop applications of LLM for digital archiving.

National Sun Yat-sen University

Kaohsiung, Taiwan

Teaching Assistant

2021 - 2023

MIS102 Computer Programming (2021 Spring, 2022 Spring)

- Lectured Python and C programming.
- Designed In-class quiz, homework, and midterm exam.

MIS572 Introduction to Big Data Analytics (2021 Fall, 2022 Fall)

- Designed In-class exercises and homework in R.

MIS985 Practical Business Analytics (2021 Spring)

- Designed In-class quiz and homework in R.

National Chengchi University

Research Assistant -- supervised by Prof. Shih-Yi Chien

- Developed interpretable topic models on HRI literature.

Taipei, Taiwan

2021

Services

Conference Reviewers: IEEE IRI (2023, 2024, 2025), IEEE MIPR (2024), VAMR (2023).

Journal Reviewer: Expert Systems

Statistical Consultant at College of Management, NSYSU. (2022 - Present).

Awards and Honors

IEEE TCMC Student Travel Support to present at IRI/MIPR

2024

IEEE Computer Society. COMPETITIVE.

NSTC Travel Grant to present at IRI

2024

National Science and Technology Council (NSTC), Taiwan. COMPETITIVE.

Liang Ting-Peng National Chair Professor Memorial Scholarship

2022, 2023

Department of Information Management, NSYSU.

Elite Doctoral Student Scholarship

2022 - 2024

A three-year scholarship co-funded by NSYSU and NSTC, Taiwan

Skills

- **Programming:** R, Python, SQL, PHP
- **ML Libraries & Toolkit:** Torch, TensorFlow, Git, Linux, Kubernetes
- **Language:** Mandarin (native), English (fluent)

Reference

Available upon request.