

Sin-Han Yang

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Education

National Taiwan University (NTU)

B.S. in Computer Science and Information Engineering

- Double Major in Physics

Taipei, Taiwan

Sep. 2019 - Jun. 2024 (Expected)

University of Birmingham

Exchange Student in Computer Science

Birmingham, UK

Sep. 2022 - Jan. 2023

Research Experiences

Computer Science and Engineering Department, UC San Diego

Remote

Visiting Student

Jun. 2022 - PRESENT

- Advisor: [Dr. Tsui-Wei \(Lily\) Weng](#)
- Focus on the interpretability of neural network
- Use model's interpretability to improve performance in continual learning [P1]
- Work on the adversarial robustness of neural network

Electrical and Computer Engineering Department, Princeton University

Remote

Visiting Student

Jun. 2023 - Sep. 2023

- Advisor: [Prof. Jason D. Lee](#)
- Work on the theoretical aspect of continual learning from representation learning
- [Working Note](#) during the internship

Nature Language Processing Laboratory, NTU

Taipei, Taiwan

Undergraduate Researcher

Nov. 2021 - PRESENT

- Advisor: [Prof. Hsin-Hsi Chen](#)
- Focus on fake news detection, design a new attention-based architecture for interpretability [C1]
- Use LLM's explanations to boost model's classification accuracy
- Gain the ability to find interesting topics, and implement ML projects

Research Center for Information Technology Innovation, Academia Sinica

Taipei, Taiwan

Research Assistant

Jan. 2021 - Jan. 2022

- Advisor: [Dr. Gen-Cher Lee](#)
- Modify communication software's source code to extend functionality
- Gain the ability to understand, modify and test big open source software

Center for Quantum Frontier of Research and Technology, NCKU

Tainan, Taiwan

Research Assistant

Jul. 2020 - Aug. 2020

- Advisor: [Prof. Yueh-Nan Chen](#)
- Derive the theory and do experiments on "Quantum Steering" effect
- Use IBMQ's python module to simulate qubit, then apply to real data

Publications

Preprint

[P1] **Sin-Han Yang**, Tuomas Oikarinen, Tsui-Wei Weng, [Towards Interpretable Continual Learning Through Controlling Concepts](#), Submitted to ICLR 2024, 2023.

Conference Papers

[C1] **Sin-Han Yang**, Chung-Chi Chen, Hen-Hsen Huang and Hsin-Hsi Chen, [Entity-Aware Dual Co-Attention Network for Fake News Detection](#), in *Findings of the Association for Computational Linguistics: EACL 2023*, 2023.

Honors & Awards

Appier Best R&D Award and CSIE 3rd Place	NTU CSIE Bachelor Research Exhibition	Taipei, Taiwan 2023
College Student Research Scholarship	National Science Council (NSC)	Taipei, Taiwan
• NSC scholarship for excellent students based on written research proposal		2023
NTU Y.L.LIN Scholarship		Taipei, Taiwan
• For exchange students		2022
NTU Dean's List Award		Taipei, Taiwan 2021
Final Selection and Training Camp	IPHO (International Physics Olympics) Taiwan team	Taipei, Taiwan 2018

Skills

- **Program Languages** Python, MATLAB, C++
- **Others** PyTorch, Git, \LaTeX