# Sin-Han Yang

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## Education

#### **National Taiwan University (NTU)**

Taipei, Taiwan

B.S. in Computer Science and Information Engineering

Sep. 2019 - Jun. 2024 (Expected)

• Double Major in Physics

**University of Birmingham** 

Birmingham, UK

**Exchange Student in Computer Science** 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

Nov. 2021 - PRESENT

**Undergraduate Researcher** 

• 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, 2023.

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#### **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
NTU Dean's List Award

Taipei, Taiwan

2021

2018

Final Selection and Training Camp IPHO (International Physics Olympics) Taiwan team

Taipei, Taiwan

# Skills.

Program Languages

Python, MATLAB, C++

Others

PyTorch, Git, ᡌT<sub>F</sub>X