Sin-Han Yang

✉ harry900302@gmail.com | ⌂ sinhanyang.github.io | ⌨ SinHanYang | in sinhanyang | Sin-Han Yang

Education

National Taiwan University (NTU) Taipei, Taiwan
B.S. in Computer Science and Information Engineering Sep. 2019 - Jun. 2024
- 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 **[J1]**
- Work on the adversarial robustness of neural network

Nature Language Processing Laboratory, NTU Taipei, Taiwan
Undergraduate Researcher Nov. 2021 - Feb. 2024
- 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

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

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

Work Experience

RIKEN Center for Advanced Intelligence Project Tokyo, Japan
Research Assistant Aug. 2024 - PRESENT
- Advisor: Dr. Emtiyaz Khan
- Using Bayesian learning and model merging principles to improve continual learning

August 18, 2024

Publications

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, *Findings of the Association for Computational Linguistics: EACL,* 2023.

Journal Paper

[J1] **Sin-Han Yang**, Tuomas Oikarinen, Tsui-Wei Weng, Concept-Driven Continual Learning, *Transactions on Machine Learning Research (TMLR),* 2024.

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

Professional Activity

- **Reviewer**   IEEE Transactions on Knowledge and Data Engineering