Yi-Li Hsu CV

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EDUCATION

National Tsing Hua University (NTHU)   **Hsinchu, Taiwan**
Ph.D. in Computer Science (CS)   08/2022 - *Present*

National Tsing Hua University (NTHU)   **Hsinchu, Taiwan**
M.S. in Computer Science (CS)   08/2021 - 07/2022
GPA: 4.3/4.3
- Received Direct Admission to Ph.D. Program in the second semester

Tübingen University   **Tübingen, Germany**
Exchange Program of Computer Science (CS)   10/2019 - 02/2020

National Tsing Hua University (NTHU)   **Hsinchu, Taiwan**
B.S in Computer Science (CS)   08/2018 - 06/2021
Major GPA: 3.85/4.3, Advanced GPA: 3.99/4.3

RESEARCH EXPERIENCE

The Language Accessibility Research Lab, iSchool at University of Washington   **Seattle, United States**
Visiting Ph.D Student Intern of Dr. Lucy Lu Wang   *04/2024 - Present*

- **Hierarchical Multi-document Summarization Generation on Medical Reviews**
  - Investigated how LLM-generated or human curated hierarchy can improve summaries of multiple documents
  - Implemented state-of-the-art evaluation metrics to assess the performance of LLMs on summarization tasks

Natural Language Processing and Sentiment Analysis Lab, Academia Sinica   **Taipei, Taiwan**
Part-time Research Assistant of Dr. Lun-Wei Ku   07/2021 - *Present*

- **Fake News Explanation Generation and Human Assessment**
  - Developed a novel method for counterfactual explanations of fake news, achieving 70% annotated accuracy
  - Led a team to evaluate and compare explanations from current LLMs and human expert.
  - Developed strategies for efficient cooperation between human and large language models
  - Analyzed the performance of models such like GPT-4, Claude and PaLM in explanation generation tasks.
  - Recruited 3,000+ annotators for qualitative assessments via Prolific.com

Computer Systems Lab, Academia Sinica   **Hsinchu, Taiwan**
Undergraduate Research Assistant of Dr. Yuan-Hao Chang   07/2018 - 06/2021

- **Optimization of non-volatile memory**
  - Investigated on optimization of non-volatile memory storage architecture with hashing
  - Reduced the insertion failure of Cuckoo hashing by 60% and increased the success rate by 25%

PUBLICATIONS

1. Enhancing Perception: Refining Explanations of News Claims with LLM Conversations **Yi-Li Hsu**, Jui-Ning Chen, Yang Fan Chiang, Shang-Chien Lui, AiPing Xiong, Lun-Wei Ku. *NAACL Findings 2024.*

2. Is Explanation the Cure? Misinformation Mitigation in the Short-term and Long-term **Yi-Li Hsu**, Shih-Chieh Dai, AiPing Xiong, Lun-Wei Ku. *EMNLP Findings 2023.*

3. Label-Aware Hyperbolic Embeddings for Fine-grained Emotion Classification. Chih-Yao Chen, Tun-Min Hung, **Yi-Li Hsu**, Lun-Wei Ku. *ACL 2023.*

4. Ask to know more: Generating Counterfactual Explanations for Fake Claims. **Yi-Li Hsu***, Shih-Chieh Dai*, AiPing Xiong, Lun-Wei Ku. *SIDKDD 2022. (Oral)* *equally contributed

TEACHING EXPERIENCE

MediaTek   Taipei, Taiwan
Teaching Assistant of AI Training Program   06/2023 - 07/2023

- Conducted labs on Transformers to provide engineers to gain hands-on experience in practical implementation
- Instructed engineers on prompt engineering and attention visualization, enabling them to effectively entegrate NLP skills into their daily workflows.

Taiwan AI Academy   Taipei, Taiwan
Teaching Assistant of Natural Language Processing Program   06/2022 - 08/2022

- Introduced dependency parsing, constituency parsing, and the HMM model with Viterbi algorithm

- Led the hands-on coding with Python and Pytorch, including parsing and Part-of-Speech tagging

Department of Computer Science, National Yang Ming Chiao Tung University (NYCU)   **Hsinchu, Taiwan**
Teaching Assistant of Natural Language Processing Course   02/2022 - 06/2022

- Prepared and instructed students on using Python pandas for dataset visualization and training models with Hugging Face using BERT

WORK EXPERIENCE

RHINOSHIELD   **Taipei, Taiwan**
AI Research Intern   03/2023 – Present

- Conducted overall research on the latest AI trends and technologies, providing valuable insights to the team

- Designed and developed machine learning model, introducing the latest technique to the industry

PriceSpider   **Taipei, Taiwan**
Data Engineer Intern   06/2020 – 2021/05

- Crawled product information from a variety of retailer platform's with Scrapy and Selenium

- Assisted in manage all crawling projects with Amazon Web Services

National Tsing Hua University – Institute of Service Science   **Hsinchu, Taiwan**
Software Engineer Assistant   03/2020 – 08/2020

- Coordinated with user experience designer and develop a web-based application prototype built in Axure

- Assisted in backend developing, debugging, prototyping and designing in web application with Ruby on rails

Bridgewell   **Taipei, Taiwan**
Data Management Platform Intern   07/2019 – 09/2019

- Analyze millions of user preferences with cookies in order to give commercial strategy suggestions

GRANTS & AWARDS

- **Ph.D Students Study Abroad Program, $30,000 , National Science and Technology Council (NSTC)**   **2024**
- **President Scholarship, $800/ month for four years,** *National Tsing Hua University, Taiwan*   **2022**
- **Travel Grant | $4,000** for attending KDD conference, *Academia Sinica, Taiwan*   **2022**
- **Appier AI and Information Technology Research Award, $1,600,** *Appier, Taiwan*   **2022**
- **TAAI Scholarship, $1,000,** *Taiwanese Association for Artificial Intelligence, Taiwan*   **2022**
- **Outbound Exchange student Scholarship, $2,500,** *National Tsing Hua University, Taiwan*   **2019**

SERVICE

ACL Rolling Review (2024), ACL (2023), EMNLP (2023), LREC-COLING (2024)

REFERENCE

Dr. Wei-Kuan Shih, *Department of Computer Science, National Tsin Hua University* (wshih@cs.nthu.edu.tw)
   Relationship: Bachelors', Masters' and Ph.D. advisor, Director of the Real-Time Lab

Dr. Lun-Wei Ku, *Institute of Information Science, Academia Sinica* (lwku@iis.sinica.edu.tw)
   Relationship: Ph.D. advisor, Director of the Natural Language Processing and Sentiment Analysis Lab

Dr. Lucy Lu Wang *iSchool, University of Washington* (lucylw@uw.edu)
   Relationship: Visiting Ph.D. student advisor, Director of The Language Accessibility Research Lab

Dr. Yuan-Hao Chang *Institute of Information Science, Academia Sinica* (johnson@iis.sinica.edu.tw)

Relationship: Bachelors' co-advisor, Deputy Director of Institute of Information Science, Academia Sinica