

I-HUNG HSU

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EDUCATION

University of Southern California, Los Angeles, California, USA *Aug. 2018 - May. 2024 (Expected)*

Ph.D. in Computer Science

Advised by: Dr. Prem Natarajan & Dr. Nanyun Peng

National Taiwan University, Taipei, Taiwan

Sep. 2013 - Jan. 2018

B.S. in Electrical Engineering

RESEARCH INTERESTS

Natural Language Processing, Information Extraction, Multilinguality, Language and Knowledge Grounding.

RESEARCH EXPERIENCE

University of Southern California, CA, USA *Aug. 2018 - Present*

Graduate Student Researcher, *Advisors: Dr. Premkumar Natarajan & Dr. Nanyun Peng*

University of California, Los Angeles, CA, USA

Sep. 2022 - Present

Visiting Student Researcher, *Advisor: Dr. Nanyun Peng*

Google Cloud AI Research, CA, USA

Sep. 2023 - Present

Research Intern, *Managers: Dr. Chen-Yu Lee, Chun-Liang Li*

- Verification for Grounded Generation in Large Language Models. (→ *Paper under submission at ACL 2024.*)

Microsoft Research, WA, USA

May. 2023 - Aug. 2023

Research Intern, *Manager: Dr. Silviu Cucerzan; Mentor: Dr. Sujay Jauhar*

- LLM on Open-Domain Question Answering for Emerging Factual Knowledge.

Alexa Conversations at Amazon Alexa AI, CA, USA

May. 2022 - Aug. 2022

Applied Scientist Intern, *Managers: Dr. Avik Ray & Dr. Jing Huang*

- Generalizing Code-Switching Synthesis to Multiple Language Pairs. (→ *Paper accepted at ACL 2023.*)

Alexa Conversations at Amazon Alexa AI, CA, USA

May. 2020 - Aug. 2020

Applied Scientist Intern, *Manager: Dr. Abhay Jha*

- Leveraged negative learning mechanism to improve conversational agents.

National Taiwan University, Taipei, Taiwan

Sep. 2016 - Dec. 2017

Undergraduate Student Researcher, *Advisor: Dr. Hung-Yi Lee*

- Mitigate automatic speech recognition errors for dialog system.

PUBLICATIONS

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- [1] **I-Hung Hsu***, Zhiyu Xie*, Kuan-Hao Huang, Premkumar Natarajan, Nanyun Peng. AMPERE: AMR-Aware Prefix for Generation-Based Event Argument Extraction Model. In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*, 2023.
- [2] **I-Hung Hsu***, Kuan-Hao Huang*, Shuning Zhang, Wenxin Cheng, Premkumar Natarajan, Kai-Wei Chang, Nanyun Peng. TAGPRIME: A Unified Framework for Relational Structure Extraction. In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*, 2023. [Oral.]

- [3] Kuan-Hao Huang, Varun Iyer, **I-Hung Hsu**, Anoop Kumar, Kai-Wei Chang, Aram Galstyan. ParaAMR: A Large-Scale Syntactically Diverse Paraphrase Dataset by AMR Back-Translation. In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*, 2023. [[Area Chair Awards.](#)]
- [4] Tanmay Parekh, **I-Hung Hsu**, Kuan-Hao Huang, Kai-Wei Chang, Nanyun Peng. GENEVA: Benchmarking Generalizability for Event Argument Extraction with Hundreds of Event Types and Argument Roles In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*, 2023.
- [5] Keming Lu, **I-Hung Hsu**, Wenxuan Zhou, Minyu Derek Ma, Muhao Chen. Multi-hop Evidence Retrieval for Cross-document Relation Extraction. In *Findings of the Association for Computational Linguistics: ACL (ACL-findings)*, 2023.
- [6] **I-Hung Hsu**, Avik Ray, Shubham Garg, Nanyun Peng, Jing Huang. Code-Switched Text Synthesis in Unseen Language Pairs. In *Findings of the Association for Computational Linguistics: ACL (ACL-findings)*, 2023.
- [7] Keming Lu, **I-Hung Hsu**, Wenxuan Zhou, Minyu Derek Ma, Muhao Chen. Summarization as Indirect Supervision for Relation Extraction. In *Findings of the Association for Computational Linguistics: EMNLP (EMNLP-findings)*, 2022.
- [8] **I-Hung Hsu***, Kuan-Hao Huang*, Elizabeth Boschee, Scott Miller, Premkumar Natarajan, Kai-Wei Chang, Nanyun Peng. DEGREE: A Data-Efficient Generation-Based Event Extraction Model. In *Proceedings of the 2022 Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL-HLT)*, 2022. [Oral.]
- [9] Kuan-Hao Huang*, **I-Hung Hsu***, Premkumar Natarajan, Kai-Wei Chang, Nanyun Peng. Multilingual Generative Language Models for Zero-Shot Cross-Lingual Event Argument Extraction. In *Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (ACL)*, 2022. [Oral.]
- [10] **I-Hung Hsu**, Xiao Guo, Premkumar Natarajan, Nanyun Peng. Discourse-level Relation Extraction via Graph Pooling. In *The Thirty-Sixth AAAI Conference on Artificial Intelligence Workshop on Deep Learning on Graphs: Methods and Applications (DLG-AAAI'22)*, 2022. [[Best Paper Award.](#)]
- [11] Rujun Han, **I-Hung Hsu**, Jiao Sun, Julia Baylon, Qiang Ning, Dan Roth, Nanyun Peng. ESTER: A Machine Reading Comprehension Dataset for Reasoning about Event Semantic Relations. In *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2021. [Oral.]
- [12] Rujun Han*, **I-Hung Hsu***, Mu Yang, Aram Galstyan, Ralph Weischedel, Nanyun Peng. Deep Structured Neural Network for Event Temporal Relation Extraction. In *Proceedings of the 23rd Conference on Computational Natural Language Learning (CoNLL)*, 2019.
- [13] **I-Hung Hsu**, Ayush Jaiswal, Premkumar Natarajan. NIESR: Nuisance Invariant End-to-end Speech Recognition. In *Proceedings of Interspeech (Interspeech)*, 2019.
- [14] Pin-Jung Chen*, **I-Hung Hsu***, Yi-Yao Huang*, Hung-Yi Lee. Mitigating the Impact of Speech Recognition Errors on Chatbot using Sequence-to-sequence Model In *Proceedings of IEEE Automatic Speech Recognition and Understanding (ASRU)*, 2017.
- [U.P.] Tanmay Parekh, **I-Hung Hsu**, Kuan-Hao Huang, Kai-Wei Chang, Nanyun Peng. Contextual Label Projection for Cross-Lingual Structure Extraction. *ArXiv:2309.08943*, 2023, *Under submission to NAACL 2024*.
- [U.P.] Kuan-Hao Huang, **I-Hung Hsu**, Tanmay Parekh, Zhiyu Xie, Zixuan Zhang, Premkumar Natarajan, Kai-Wei Chang, Nanyun Peng, Heng Ji. A Reevaluation of Event Extraction: Past, Present, and Future Challenges. *ArXiv:2311.09562*, 2023, , *Under submission to ACL 2024*.
- [U.] **I-Hung Hsu***, Zihan Xue*, Nilay Pochhi, Sahil Bansal, Premkumar Natarajan, Jayanth Srinivasa, Nanyun Peng. Argument-Aware Approach To Event Linking. *Under submission to ACL 2024*.

(*: Equal Contribution; P.: Preprint; U.: Under Submission)

SELECTED AWARDS

Area Chair Award in ACL 2023 [[Link](#)]

– One out of papers in the track of Semantics: Sentence-level Semantics and Textual Inference.

2023

Best Paper Award in DLG-AAAI'22 Workshop [\[Link\]](#)
Amazon Alexa Graduate Fellowship [\[Link\]](#)

2022
2018 - 2019

PROFESSIONAL SERVICES

Area Chair/Action Editor

- Natural Language Processing: ACL Rolling Review (2024)

Program Committee/Reviewer

- Natural Language Processing: COLM (2024), ACL Rolling Review (2021-2023), ACL (2021-2023), EMNLP (2021-2023), NAACL (2022-2024), EACL (2023-2024), NLPCC (2022-2023)
- Machine Learning: AAAI (2021-2024), AISTATS (2024)
- Miscs: CogSci (2023-2024), Transfer Learning for NLP workshop@NeurIPS (2022), RCQA@AAAI (2020)

TEACHING EXPERIENCE

Teaching Assistant, University of Southern California, CA, USA

- CSCI 567: Machine Learning Fall 2022
- CSCI 544: Applied Natural Language Processing Fall 2021

Teaching Assistant, National Taiwan University, Taipei, Taiwan

- Machine Learning Fall 2017

SKILLS

Programming: Python, PyTorch, Tensorflow, Keras, MySQL, Django, Docker, Git, \LaTeX , C++, Matlab
Languages: Mandarin (native), English (fluent), Taiwanese (fluent)