

Kuan-Hao Huang

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EDUCATION	University of California Los Angeles , CA, USA Ph.D. in Computer Science Advisor: Prof. Kai-Wei Chang, GPA: 3.96/4.0	Sep. 2018 - Present
	National Taiwan University , Taipei, Taiwan M.S. in Computer Science and Information Engineering Advisor: Prof. Hsuan-Tien Lin, GPA: 4.11/4.3	Sep. 2014 - Jun. 2016
	National Taiwan University , Taipei, Taiwan B.S. in Computer Science and Information Engineering GPA: 4.10/4.3 (major), 3.96/4.3 (overall)	Sep. 2010 - Jun. 2014

RESEARCH INTERESTS Natural Language Processing and Machine Learning

RESEARCH EXPERIENCE	University of California Los Angeles , CA, USA Graduate Student Researcher, Advisor: Prof. Kai-Wei Chang	Sep. 2018 - Present
	<ul style="list-style-type: none">– Improving sentence representations to obtain more stable news article clusters by incorporating knowledge graph information into language models– Generated syntactically diverse paraphrases without using annotated parallel pairs by disentangling the semantics and the syntax of sentences– Analyzed and reduced gender bias in languages with grammatical gender	
	Tencent AI Lab , WA, USA Research Intern, Mentor: Dr. Chen Li	Jun. 2019 - Sep. 2019
	<ul style="list-style-type: none">– Collected a Chinese dataset for sports game summarization tasks– Proposed a two-step sports game summarization model to extract important information from live commentaries and generate sports summaries	
	National Taiwan University , Taipei, Taiwan Research Assistant, Advisor: Prof. Shou-De Lin	Sep. 2017 - Jul. 2018
	<ul style="list-style-type: none">– Implemented and analyzed a wide variety of deep active learning algorithms	
	National Taiwan University , Taipei, Taiwan Research Assistant, Advisor: Prof. Hsuan-Tien Lin	Jun. 2012 - Jun. 2016
	<ul style="list-style-type: none">– Proposed a series of cost-sensitive multi-label classification algorithms that can approximately optimize any evaluation function– Developed an innovative cost-sensitive multi-class active learning that can select informative instances with regard to any target cost matrix– Designed a novel contextual bandit algorithm to deal with delayed piled-rewards	

CONFERENCE PUBLICATIONS

- [1] **Kuan-Hao Huang**, Chen Li, and Kai-Wei Chang. Generating sports news from live commentary: A chinese dataset for sports game summarization. In *Proceedings of the Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics (ACL)*, 2020.
- [2] Sean T. Yang, **Kuan-Hao Huang**, and Bill Howe. JECL: Joint embedding and cluster learning for image-text pairs. In *Proceedings of International Conference on Pattern Recognition (ICPR)*, 2020.

- [3] Pei Zhou, Weijia Shi, Jieyu Zhao, **Kuan-Hao Huang**, Muhao Chen, Ryan Cotterell, and Kai-Wei Chang. Examining gender bias in languages with grammatical gender. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2019.
- [4] Yao-Yuan Yang, **Kuan-Hao Huang**, Chih-Wei Chang, and Hsuan-Tien Lin. Cost-sensitive reference pair encoding for multi-label learning. In *Proceedings of the Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, 2018.
- [5] **Kuan-Hao Huang** and Hsuan-Tien Lin. A novel uncertainty sampling algorithm for cost-sensitive multiclass active learning. In *Proceedings of the IEEE International Conference on Data Mining (ICDM)*, 2016.
- [6] **Kuan-Hao Huang** and Hsuan-Tien Lin. Linear upper confidence bound algorithm for contextual bandit problem with piled rewards. In *Proceedings of the Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, 2016.

JOURNAL
PUBLICATIONS

- [7] Hong-Min Chu, **Kuan-Hao Huang**, and Hsuan-Tien Lin. Dynamic principal projection for cost-sensitive online multi-label classification. *Machine Learning (ECML PKDD Journal Track)*, 2019.
- [8] **Kuan-Hao Huang** and Hsuan-Tien Lin. Cost-sensitive label embedding for multi-label classification. *Machine Learning (ECML PKDD Journal Track)*, 2017.
- [9] Chun-Liang Li, Yu-Chuan Su, Ting-Wei Lin, Cheng-Hao Tsai, Wei-Cheng Chang, **Kuan-Hao Huang**, Tzu-Ming Kuo, Shan-Wei Lin, Young-San Lin, Yu-Chen Lu, Chun-Pai Yang, Cheng-Xia Chang, Wei-Sheng Chin, Yu-Chin Juan, Hsiao-Yu Tung, Jui-Pin Wang, Cheng-Kuang Wei, Felix Wu, Tu-Chun Yin, Tong Yu, Yong Zhuang, Shou-De Lin, Hsuan-Tien Lin, and Chih-Jen Lin. Combination of feature engineering and ranking models for paper-author identification in KDD Cup 2013. *Journal of Machine Learning Research*, 2015. (Extended first-place winner report of KDD Cup 2013 track 1).
- [10] Wei-Sheng Chin, Yong Zhuang, Yu-Chin Juan, Felix Wu, Hsiao-Yu Tung, Tong Yu, Jui-Pin Wang, Cheng-Xia Chang, Chun-Pai Yang, Wei-Cheng Chang, **Kuan-Hao Huang**, Tzu-Ming Kuo, Shan-Wei Lin, Young-San Lin, Yu-Chen Lu, Yu-Chuan Su, Cheng-Kuang Wei, Tu-Chun Yin, Chun-Liang Li, Ting-Wei Lin, Cheng-Hao Tsai, Shou-De Lin, Hsuan-Tien Lin, and Chih-Jen Lin. Effective string processing and matching for author disambiguation. *Journal of Machine Learning Research*, 2014. (Extended first-place winner report of KDD Cup 2013 track 2).

SELECTED
AWARDS

- Thesis Honorable Mention Award**, Taiwanese Association for AI 2016
- Fourth Place**, KDD Cup 2015 2015
- Second Place**, ICASSP Signal Processing Cup 2014
- First Place**, Track 1 of KDD Cup 2013 2013
- First Place**, Track 2 of KDD Cup 2013 2013
- Presidential Award**, National Taiwan University 2011

PROFESSIONAL
SERVICES

- Program Committee/Reviewer**
– ICML 2020, ICLR 2021
- Student Volunteer**
– ACL 2020

TEACHING
EXPERIENCE

Teaching Assistant, University of California Los Angeles, CA, USA

- CS 146: Introduction to Machine Learning Fall 2020
- CS 144: Web Applications Spring 2020
- CS 269: Fairness, Accountability, and Transparency in NLP Winter 2020

Teaching Assistant, National Taiwan University, Taipei, Taiwan

- CSIE 5043: Machine Learning Fall 2013, Fall 2014, Fall 2015
- CSIE 1212: Data Structure and Algorithm Spring 2013, Spring 2015