

Min-Hsuan (Samuel) Yeh

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EDUCATION

University of Massachusetts Amherst
MS in Computer Science

Amherst, MA
Aug. 2022 – Present

National Taiwan University of Science and Technology (NTUST)
B.Sc. in Computer Science and Information Engineering (CSIE)
GPA: 3.97/4.3, Rank: 2/51, Academic Excellence Award (Fall 2017)

Taipei, Taiwan
Aug. 2016 – Jan. 2020

RESEARCH EXPERIENCE

Natural Language Processing and Sentiment Analysis Lab, Academia Sinica
Research Assistant, Advisor: Dr. Lun-Wei Ku

Taipei, Taiwan
May 2020 – Jul. 2022

Lie Detection (Publications [1])

- Established data collection guidelines by re-evaluating current collection methods in terms of verbal leakage cues, a psychological theory
- Demonstrated influence of verbal leakage cues on lie detection models by measuring inter- and inner-validity

Multi-Visual Question Generation (Publications [2])

- Designed challenging NLP task from visual storytelling (VIST) and visual question generation (VQG) datasets to generate natural, engaging questions from multiple images
- Prevented model from forgetting problem, caused model to learn knowledge from both VIST and VQG data by applying adapter-tuning framework on visual-language transformer
- Collected MVQG dataset with 30,000+ images-question pairs for the multi-visual question generation task

Graphics Animation Multimedia Edutainment (GAME) Lab, NTUST
Undergraduate Research Assistant, Advisor: Prof. Wen-Kai Tai

Taipei, Taiwan
Feb. 2017 – Jan. 2020

Mahjong AI

- Designed value-based reinforcement learning agent with Keras (model) and C++ (distributed system) to play mahjong (a traditional board game in Taiwan) with human opponents
- Developed mahjong environment with Go and JavaScript+WebGL to evaluate AI agents

Probability Simulation for Slot Game Design

- Implemented parallel computing algorithm with CUDA to reduce combinations of slot games and streamlined slot game probability simulation to 70 times faster than baselines
- Developed web-based tool with Vue.js as frontend and Node.js+SQL as backend to visualize simulation results

PUBLICATIONS

[1] **Min-Hsuan Yeh** and Lun-Wei Ku, “*Lying Through One’s Teeth: A Study on Verbal Leakage Cues,*” in Proceedings of The 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP 2021) [pdf]

[2] **Min-Hsuan Yeh**, Vincent Chen, Ting-Hao Huang, and Lun-Wei Ku, “*Multi-VQG: Generating Engaging Questions for Multiple Images,*” in Proceedings of The 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP 2022)[pdf]

ACADEMIC SERVICE

Dept. of Computer Science and Information Engineering, NTUST
Teaching Assistant — Object Oriented Programming
Teaching Assistant — Computer Programming

Taipei, Taiwan
Spring 2018
Fall 2017

Natural Language Processing and Sentiment Analysis Lab, Academia Sinica
Conference Reviewer: ACL 2022, IAAI 2022, AAAI 2022, NLPCC 2021, IAAI 2021

Taipei, Taiwan