

YI-HUI (LILY) LEE

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SUMMARY

Fourth year Ph.D. Candidate in Computer Science passionate in Artificial Intelligence looking for a position as Research Intern. Prefer but not limit to working on Machine Learning and Artificial Intelligence.

EXPERIENCE

The University of Texas at Dallas (PyTorch, AWS-Mturk, spaCy, AllenNLP, Gensim)

Richardson, TX

Research Assistant, Advisor: **Prof. Shuang Hao**

Aug. 2018 to Present

- Research on fake news, fake images and fake videos.
- Design deep learning-based method to detect fake information in social media.
- Build token embedding by **Gensim** and group with Hierarchical/ K-means clustering. Define IoT device domain-name patterns.

Institute of Information Science, Academia Sinica

Taipei, Taiwan

Research Assistant, Advisor: **Prof. Wei-Yun Ma**

Jul. 2016 to Jun. 2018

- Researched on natural language processing and deep learning related topics.
- Designed a product embedding model to assign an unique product to entities mentioned in the blog. (**Published in LREC 2020**[1].)
- Proposed bootstrapping method to extract instances from unstructured movie articles. (**Published in WWW Demo 2017**[4].)

National Taiwan Normal University

Taipei, Taiwan

Research Assistant, Advisor: **Prof. Jia-Ling Koh**

Sep. 2015 to Aug. 2017

- Research on knowledge discovery and data/ text mining
- Designed a web search-based approach to extract conditional relation tuple for diseases and symptoms.
- **Published in IEEE/WIC/ACM International Conference on Web Intelligence (WI 2018)**, Santiago[3].

IBM

Taipei, Taiwan

Software Engineering Intern

Jul. 2015 to Dec. 2015

- Worked on troubleshooting solutions for auto insurance batch system such as insurance renewal and reimbursement accounting.
- Debugged and detected in user acceptance testing stage, increased acceptance rate to 95%.
- Led internship group of 12 people on planning panel talks and designing a business proposal for emotional cloud service.

SELECTED PROJECT

Computer Vision with Convolutional Neural Networks

Aug. 2020 to May. 2021

- Combine deep learning (**MTCNN, cascade**) and rule-based algorithm to detect eye-blinking leading 81.36% accuracy. (**TensorFlow**)
- Design Attention-Based Bilingual Image2caption Emoji Model (**ABBIE**) for image captioning. (**PyTorch, Python, cv2, Hugging Face**)
- **ABBIE** used three subsystem components; Transformer, bilingual language model and image caption model.

AWARDS

- **4th Place (4/1564)**, ACM RecSys X Trivago Challenge 2019 (**Published in RecSys 2019** [2].)
- **Travel Grant**, Google Grace Hopper Celebration, 2018
- **Women Techmakers Scholarship**, Google (Asia Pacific Area), 2017
- **1st Place**, PIXNET (Taiwan) CHATBOT HACKATHON, 2017
- **Top 25**, ATCC X IBM (Taiwan) 11th National College Business Case Competition, 2013

PUBLICATIONS

[1] Mu Yang, Chi-Yen Chen, **Yi-Hui Lee**, Qian-Hui Zeng, Wei-Yun Ma, Chen-Yang Shih, Wei-Jhih Chen, "Headword-Oriented Entity Linking: A New Entity Linking Task with Dataset and Baseline," *Proc. LREC*, May 2020.

[2] Kung-Hsiang Huang, Yi-Fu Fu, Yi-Ting Lee, Tzong-Hann Lee, Yao-Chun Chan, **Yi-Hui Lee**, Shou-De Lin, "A-HA: A Hybrid Approach for Hotel Recommendation," *Proc. the 13th ACM Recommender Systems Challenge Workshop, RecSys Challenge*, September 2019.

[3] **Yi-Hui Lee**, Jia-Ling Koh, "Conditional Relationship Extraction for Diseases and Symptoms by a Web Search-Based Approach," *Proc. IEEE/WIC/ACM International Conference on Web Intelligence*, December 2018.

[4] Peng-Yu Chen, **Yi-Hui Lee**, Yueh-Han Wu, Wei-Yun Ma, "IExM: Information Extraction System for Movies," *Proc. ACM WWW Demo Track*, April 2017. (**Best Demo - Special Mention Award**)

EDUCATION

The University of Texas at Dallas

Richardson, TX

Doctor of Philosophy in Computer Science

Aug. 2018 to May. 2023(expected)

National Taiwan Normal University

Taipei, Taiwan

Master of Science and Bachelor of Science in Computer Science and Information Engineering

Sep. 2011 to Aug. 2017

SKILLS

- **Programming Language:** Python, PyTorch, Tensorflow, C/C++, Java, Matlab, PHP, HTML, MySQL, JavaScript, CSS
- **Platform:** Keras, AWS EC2, GCP, Linux, Twitter API, Spark, Hadoop, OpenCL, OpenMP, ~~ETX~~, Scrapy