

YI-HUI (LILY) LEE

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SUMMARY

Ph.D. Candidate in Computer Science passionate in Artificial Intelligence looking for a position as Research Intern. Prefer but not limit to working on Natural Language Processing, Machine/ Deep Learning and Artificial Intelligence.

EXPERIENCE

NVIDIA

AI Software Intern- Riva, Supervisor: **Dr. Oluwatobi Olabiyi**

Santa Clara, CA

May. 2022 to Aug. 2022

- Will research deep learning and natural language processing techniques to build high-performance conversational AI services.

The University of Texas at Dallas (PyTorch, AllenNLP, Hugging Face)

Richardson, TX

Research Assistant, Mentor: **Prof. Jessica Ouyang**

May. 2022 to Present

- Start research on multi-scientific article summarization.

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

Richardson, TX

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

Aug. 2018 to May. 2022

- Research on analyzing and defending against online illicit activity.
- 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 WI 2018**[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.

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

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

Doctor of Philosophy in Computer Science

Richardson, TX

Aug. 2018 to Present

National Taiwan Normal University

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

Taipei, Taiwan

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, \LaTeX , Scrapy