

Jiaying Lu

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Research Interests

Graph Mining, Knowledge Graph, Multimodal Learning, Text Mining.

Education

Emory University, Atlanta, GA USA

Thesis Advisor: Dr. [Carl Yang](#)

Ph.D. in Computer Science

Sep 2019 – May 2024 (Expected)

Beijing University of Posts and Telecommunications, Beijing, China

M.E. in Electronics and Communication Engineering

Sep 2014 -- Mar 2017

B.S. in Information Engineering

Sep 2010 -- Jun 2014

Journal Papers

[9] Wenjing Ma, **Jiaying Lu**, Hao Wu. "[Cellcano: supervised cell type identification for single cell ATAC-seq data](#)." *Nature Communications*. 2023.

[8] **Jiaying Lu**, Xiangjue Dong, Carl Yang. "[Weakly Supervised Concept Graph Generation through Task-Guided Graph Translation](#)." *IEEE Transactions on Knowledge and Data Engineering (TKDE)*. 2023.

Conference Papers

[7] **Jiaying Lu**, Jiaming Shen, Bo Xiong, Wenjing Ma, Steffen Staab, Carl Yang. "[HiPrompt: Few-shot Biomedical Knowledge Fusion via Hierarchy-Oriented Prompting](#)." *46th International ACM SIGIR Conference on Research and Development in Information Retrieval – short paper (SIGIR)*. 2023.

[6] Xiangjue Dong, **Jiaying Lu**, Jianling Wang, James Caverlee. "[Closed-book Question Generation via Contrastive Learning](#)." *17th Conference of the European Chapter of the Association for Computational Linguistics (EACL)*. 2023.

[5] **Jiaying Lu**, Carl Yang. "[Open-World Taxonomy and Knowledge Graph Co-Learning](#)." *4th Conference on Automated Knowledge Base Construction (AKBC)*. 2022.

[4] **Jiaying Lu**, Xin Ye, Yi Ren, Yezhou Yang. "[Good, better, best: Textual distractors generation for multi-choice VQA via policy gradient](#)." *CVPR Workshop on Open-Domain Retrieval Under a Multi-Modal Setting*. 2022.

[3] Hejie Cui, **Jiaying Lu**, Yao Ge, Carl Yang. "[How Can Graph Neural Networks Help Document Retrieval: A Case Study on CORD19 with Concept Map Generation](#)." *44th European Conference on Information Retrieval – short paper (ECIR)*. 2022.

[2] **Jiaying Lu**, Jinho D. Choi. "[Evaluation of Unsupervised Entity and Event Salience Estimation](#)." *34th International FLAIRS Conference Proceedings*. 2021.

Preprint Papers

[1] **Jiaying Lu**, Yongchen Qian, Shifan Zhao, Yuanzhe Xi, Carl Yang. "[MuG: A Mutlimodal Classification Benchmark on Game Data With Tabular, Textual, and Visual Fields](#)." Under Submission. 2023.

Research & Professional Experience

Amazon.com, Sunnyvale, CA USA

Applied Scientist Intern

May 2022–Aug 2022

- Multi-modal automated machine learning for large-scale product binary classification problems.

Arizona State University, Tempe, AZ USA

Visiting Student

Aug 2018 – Jan 2019

- Proposed a reinforcement learning model to generate distractors for multiple-choice visual questions, advised by Dr. [Yezhou Yang](#).

Xiaomi, Search Engine Group, Beijing, China

NLP Engineer

Jan 2018 – Jul 2018

- Responsible for word segmentation, named entity recognition modules of the MIUI search engine.
- Developed a sequence tagging model for mining synonym pairs from unstructured text.

Baidu, Search Advertising Group, Beijing, China

NLP Engineer

Apr 2017 -- Dec 2017

NLP Engineer Intern

Oct 2016 -- Mar 2017

- Participated in core projects that empowered numerous business partners and increased the search engine Ads revenue by millions.
- Applied NLP techniques for dynamic Ad content generation, sentences similarity calculation.

Honors

CIKM'22 Virtual Registration Award.

SIGKDD'22 Student Travel Award.

Services

Program Committee: ICML-[IMLH'21](#), ICCV-[CAVMD'21](#).

Reviewer: ICRA'19, IJCAI'20, BigData'21, CIKM'21, TKDE'21, KDD'22, AAAI'23, ICRA'23, TNNLS'23.

Conference Organizing: SIGKDD'22 [Web Developer](#).

Skills

Coding Languages: Python, C&C++, Shell, HTML&CSS, JavaScript, Java, SPARK.

Machine Learning Tools: PyTorch, TensorFlow, DGL, NLTK, Gensim, scikit-learn.