# 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. <u>Carl Yang</u> Ph.D. in Computer Science

*Sep 2019 – Jun 2024 (Expected)* 

Beijing University of Posts and Telecommunications, Beijing, China

M.E. in Electronics and Communication Engineering

Sep 2014 -- Mar 2017 Sep 2010 -- Jun 2014

B.S. in Information Engineering

# **Publications**

- Xiangjue Dong, **Jiaying Lu**, Jianling Wang, James Caverlee. "<u>Closed-book Question Generation via Contrastive Learning.</u>" The 17<sup>th</sup> Conference of the European Chapter of the Association for Computational Linguistics. 2023.
- **Jiaying Lu**, Carl Yang. "Open-World Taxonomy and Knowledge Graph Co-Learning." 4<sup>th</sup> Conference on Automated Knowledge Base Construction. 2022.
- **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.
- Hejie Cui, **Jiaying Lu**, Yao Ge, Carl Yang. "<u>How Can Graph Neural Networks Help Document Retrieval: A Case Study on CORD19 with Concept Map Generation.</u>" 44<sup>th</sup> European Conference on Information Retrieval (short). 2022.
- Jiaying Lu, Jinho D. Choi. "Evaluation of Unsupervised Entity and Event Salience Estimation." The 34th International FLAIRS Conference Proceedings. 2021.

# **Preprint Papers**

- **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 at *ACM SIGIR Conference*. 2023.
- Wenjing Ma, Jiaying Lu, Hao Wu. "Cellcano: supervised cell type identification for single cell ATAC-seq data."
   Under Major Revision at Nature Communications. 2022.
- **Jiaying Lu**, Xiangjue Dong, Carl Yang. "Weakly Supervised Concept Graph Generation through Task-Guided Graph Translation." Under Major Revision at *IEEE Transactions on Knowledge and Data Engineering*. 2022.

#### 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
NLP Engineer Intern
Apr 2017 -- Dec 2017
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.