

Siyi Liu

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Research Interests

My primary research interest lies in the intersection of machine learning and natural language understanding. I am generally interested in understanding the implications from news sources, including their *perspectives* and *frames*. I am also interested in multi-modality learning, low resource/zero-shot NLP, NLP for social good, and other applications of NLP.

Education

University of Pennsylvania, Philadelphia, PA
M.S.E. in Computer and Information Science
Advisor: Dan Roth

2020-2022

Boston University, Boston, MA
B.A./M.S. Dual Degree in Computer Science
Advisor: Derry Wijaya

2016-2020

Publications

[1] Siyi Liu, Sihao Chen, Xander Uyttendaele, Dan Roth

“MultiOpEd: A Corpus of Multi-Perspective News Editorials”, in NAACL 2021.

[\[Paper\]](#)[\[Slides/Talk/Poster\]](#)

[2] Siyi Liu, Lei Guo, Kate Mays, Margrit Betke and Derry Tanti Wijaya.

“Detecting Frames in News Headlines and Its Application to Analyzing News Framing Trends Surrounding U.S. Gun Violence.” In *Proceedings of Conference on Computational Natural Language Learning (CoNLL)* 2019.

[\[Paper\]](#) [\[Slides\]](#)

[3] Siyi Liu*, Ziang Leng*, Derry Tanti Wijaya.

“Learning To Mirror Speaking Styles Incrementally.” in arxiv.

[\[Paper\]](#)

Research Experience

University of Pennsylvania

Summer 2020 – Present

Advisor: Prof. Dan Roth

Project: Information Pollution Project

- A dataset with hierarchical structure of query, perspectives, evidence, article
- Study and analyze the argumentation structure of news articles
- Develop a demo website that searches in real time in a perspective-oriented manner
- Argument similarity with sentence compression

University of Pennsylvania

Fall 2021 – Present

*Advisor: Prof. Mark Yatskar**Project: Zero-shot Image Classification with Pre-trained Text Representations*

- *Pretrain language models on Wikipedia articles and produce text representations as side-information*
- *Align image and text representations for zero-shot image classification*

Boston University

Spring 2019 – Fall 2020

*Advisor: Prof. Derry Wijaya**Projects:*

- *Detect frames in news headlines and analyze news framing trends surrounding U.S. gun violence*
- *Capture and transform speaking styles in a low resource setting*
- *Create multimedia summaries using tweets and videos*

City University of Hong Kong

Aug 2019 - Sep 2019

*Advisor: Prof. Junhui Wang**Project: Analyze Chinese law documents and cluster similar case descriptions***Awards**

Undergraduate Research Opportunity Program Award, Boston University

Fall 2019

Dean's List, College of Arts and Sciences, Boston University

Spring 2019

Dean's List, College of Arts and Sciences, Boston University

Spring 2018

Skills

Programming Languages: Python (proficient), Java, C/C++, Latex

Tools: Huggingface Transformers, Pytorch, nltk, sklearn

Services

Reviewers: AAIL 2021 (secondary)