Zhenyu Lei

University of Virginia
Phone: +1 4349877068
Email: vjd5zr@virginia.edu
Webpage: https://lzyfischer.github.io

Research Interests

My primary research interests lie at the intersection of natural language processing and graph mining (especially molecule graphs and social networks), spatial-temporal graphs, and ML fairness. Currently, my focus is on the molecular language model, which is based on the translation between the natural language and scientific language with multiple modalities.

Education

University of Virginia, Charlottesville, VA, USA   2023.8-present
Ph.D. in ECE
Advisor: Jundong Li

Xi'an Jiaotong University, Xi'an, Shaanxi, China   2019.8-2023.6
B.S. in Physics
GPA:89.46/100 (3.82/4.3) (**Transcript**)
Advisor: Minnan Luo

Publications (* equal contribution)

[12] **Harnessing Large Language Models for Disaster Management: A Survey**
Zhenyu Lei, Yushun Dong, Weiyu Li, Rong Ding, Qi Wang, Jundong Li
Preprint

[11] **BrainMAP: Learning Multiple Activation Pathways in Brain Networks**
Song Wang*, **Zhenyu Lei***, Zhen Tan, Jiaqi Ding, Xinyu Zhao, Yushun Dong, Guorong Wu, Tianlong Chen, Chen Chen, Aiying Zhang, Jundong Li
AAAI'25 (Oral)

[10] **ST-FiT: Inductive Spatial-Temporal Forecasting with Limited Training Data**
Zhenyu Lei, Yushun Dong, Jundong Li, Chen Chen
AAAI'25 (Oral)

[9] **Idea: A flexible framework of certified unlearning for graph neural networks**
Yushun Dong, Binchi Zhang, **Zhenyu Lei**, Na Zou, Jundong Li
KDD'24

[8] **A Benchmark for Fairness-Aware Graph Learning**
Yushun Dong, Song Wang, **Zhenyu Lei**, Zaiyi Zheng, Jing Ma, Chen Chen, Jundong Li
NeurIPS'24

[7] **PyGDebias: A Python Library for Debiasing in Graph Learning**
Yushun Dong, **Zhenyu Lei**, Zaiyi Zheng, Song Wang, Jing Ma, Alex Jing Huang, Chen Chen, Jundong Li
WWW'24

[6] **LMBot: Distilling Graph Knowledge into Language Model for Graph-less Deployment in Twitter Bot Detection**
Zijian Cai, Zhaoxuan Tan, **Zhenyu Lei**, Hongrui Wang, Zifeng Zhu, Qinghua Zheng, Minnan Luo
WSDM'24

[5] **HOFA: Twitter Bot Detection with Homophily-Oriented Augmentation and Frequency Adaptive Attention**

Sen Ye, Zhaoxuan Tan, **Zhenyu Lei**, Ruijie He, Hongrui Wang, Qinghua Zheng, Minnan Luo

arXiv'23

[4] **TwiBot-22: Towards graph-based Twitter bot detection**

Shangbin Feng, Zhaoxuan Tan, Herun Wan, Ningnan Wang, Zilong Chen, Binchi Zhang, Qinghua Zheng, Wenqian Zhang, **Zhenyu Lei**, Shujie Yang, Xinshun Feng, Qingyue Zhang, Hongrui Wang, Yuhan Liu, Yuyang Bai, Heng Wang, Zijian Cai, Yanbo Wang, Lijing Zheng, Zihan Ma, Jundong Li, Minnan Luo

NeurIPS'23

[3] **KALM: Knowledge-Aware Integration of Local, Document, and Global Contexts for Long Document Understanding**

Shangbin Feng, Zhaoxuan Tan, Wenqian Zhang, **Zhenyu Lei**, Yulia Tsvetkov

ACL'23

[2] **BIC: Twitter Bot Detection with Text-Graph Interaction and Semantic Consistency**

Zhenyu Lei*, Herun Wan*, Wenqian Zhang, Shangbin Feng, Jundong Li, Qinghua Zheng, Minnan Luo

ACL'23

[1] **KCD: Knowledge Walks and Textual Cues Enhanced Political Perspective Detection in News Media**

Wenqian Zhang, Shangbin Feng, Zilong Chen, **Zhenyu Lei**, Jundong Li, Minnan Luo

NAACL'22

Honors and Awards

UVA Engineering Academic Commitment to Excellence (ACE) Fellowship	2023
Scholarship for Outstanding Sichuan Students	2021
Provincial First Prize, CUMCM	2020
Dean's List, Xi'an Jiao Tong University	2020, 2021

Services

Reviewer for COLM	2024
Reviewer for KDD	2024
Volunteer for ACL	2023
Reviewer for NeurIPS	2023

Skills

- Programming Skills: Python, PyTorch, MATLAB, C/C++, bash, HTML/CSS, LaTeX

- Language Skills: Mandarin (native), English (TOEFL 101: R 29, L 29, S 22, W 21)