PhD in Computer Science, University of Illinois at Urbana-Champaign

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EDUCATION

University of Illinois at Urbana-Champaign

Aug 2020 - May 2025

Ph.D. Candidate in Computer Science. Advisor: Prof. Tarek Abdelzaher.

University of Illinois at Urbana-Champaign

Aug 2020 - Dec 2022

M.S. in Computer Science. Advisor: Prof. Tarek Abdelzaher.

Shanghai Jiao Tong University

Sep 2015 - Jun 2019

B.S. in Computer Science (ACM Honors Class). Advisors: Prof. Yong Yu and Prof. Xiaofeng Gao.

RESEARCH **INTERESTS** Social Networks, Data Mining, Graph Mining, Natural Language Processing

Recommender Systems, Computer Vision, Autonomous Driving

INDUSTRY

Amazon | Applied Scientist Intern Alexa Research Team

May - Aug 2023

 Structure-Aware Large Language Model Adaption for Instruction-Following and Question-Answering Tasks. Distributed LLM Training with deepspeed and FSDP.

Twitter | Applied Research Intern Cortex Research Team

May - Aug 2022

• Enhanced tweet representation learning with a large-scale knowledge graph embedding of non-textual units. Achieved 2%-5% improvements on downstream tasks including hashtag/topic/sentiment prediction and information extraction. Published a paper. 🖪

Pony.ai | Machine Learning Engineer (Permanent) Perception Team Jul 2019 - Aug 2020

- Fused obstacles (cars, trucks, pedestrians, cyclists) classification system with ResNet and Random Forest, and deployed the model inference with NVIDIA TensorRT.
- Real-time obstacle trajectory prediction for driveway with Random Forest and Recurrent Neural Networks. Reduced 8% disengagement and hard brake issues.

YITU Tech | Research Intern Face Recognition Team

Feb - Jun 2019

• Improved face verification accuracy by 4.8% with the proposed identification-preserving super-resolution algorithm. Published a paper. 🚨

Publications Reconciling Competing Sampling Strategies of Network Embedding

Yuchen Yan, Baoyu Jing, Lihui Liu, Ruijie Wang, Jinning Li, Tarek Abdelzaher, Hanghang Tong In Conference on Neural Information Processing Systems (NIPS) 2023

Influence Pathway Discovery on Social Media

Xinyi Liu, Ruijie Wang, Dachun Sun, Jinning Li, C. Youn, Y. Lyu, J. Zhan, D. Wu, X. Xu, M. Liu, X. Lei, Z. Xu, Y. Zhang, Z. Li, Q. Yang, T. Abdelzaher

In The 9th IEEE International Conference on Collaboration and Internet Computing (IEEE CIC) 2023

Unsupervised Belief Representation Learning with Variational Graph Auto-Encoders 🚨 🗘

Jinning Li, Huajie Shao, Dachun Sun, R. Wang, Y. Yan, J. Li, S. Liu, H. Tong, T. Abdelzaher In International ACM SIGIR Conference (SIGIR) 2022

The Paradox of Information Access: On Modeling Polarization in the Age of Information

Chao Xu, Jinyang Li, D. Sun, Jinning Li, T. Abdelzaher, J. Graham, M. Macy, C. Lebiere, B. Szymanski In IEEE Transactions on Control of Network Systems (TCNS) 2023

Measuring the Effect of Influential Messages on Varying Personas 🚨

Chenkai Sun, Jinning Li, Hou Pong Chan, ChengXiang Zhai and Heng Ji

In Annual Meeting of the Association for Computational Linguistics (ACL) 2023

	Noisy Positive-Unlabeled Learning with Self-Training for Knowledge Graph F Ruijie Wang, Baoyu Li, Yichen Lu, Dachun Sun, Jinning Li, Y. Yan, S. Liu, H. Tong and	•		
	In Annual Meeting of the Association for Computational Linguistics (ACL) 2023	. 17 110 delibrates		
	Unsupervised Image Classification by Ideological Affil. from User-Content In Xinyi Liu, Jinning Li, D. Sun, R. Wang, T. Abdelzaher, M. Brown, A. Barricelli, M. Kirchne			
	In PhoMemes Workshop at AAAI Conference on Web and Social Media (ICWSM) 2023			
	NTULM: Enriching Social Media Text Representations with Non-Textual Unit Jinning Li*, Shubhanshu Mishra*, Ahmed El-Kishky, Sneha Mehta, Vivek Kulkarni In W-NUT Workshop at <i>International Conference on Computational Linguistics</i> (COLING			
	Learning to Sample and Aggregate: Few-shot Reasoning over Temporal Know	_		
	Ruijie Wang, Zheng Li, Dachun Sun, Shengzhong Liu, Jinning Li , Bing Yin, Tarek Abde In <i>Conference on Neural Information Processing Systems</i> (NIPS) 2022	•		
	Cost Function Learning in Memorized Social Nets with Cognitive Behavioral Yanbing Mao, Jinning Li, Naira Hovakimyan, Tarek Abdelzaher, Christian Lebiere In <i>IEEE Transactions on Computational Social Systems</i> (TCSS) 2022	Asymmetry 🚨		
	Dissecting Cross-Layer Dependency Inference on Multi-Layered Inter-Dependency Yuchen Yan, Qinghai Zhou, Jinning Li, Tarek Abdelzaher, and Hanghang Tong In International Conference on Information and Knowledge Management (CIKM) 2022	dent Nets 🚨		
	ID Preserving Face Super-Resolution Generative Adversarial Networks Dinning Li, Yichen Zhou, Jie Ding, Cen Chen, Xulei Yang In IEEE Access 2020			
	Scribble-to-Painting Transformation with Multi-Task Generative Adversarial	Networks 🚨 😱		
	Jinning Li, Yexiang Xue			
	In International Joint Conference on Artificial Intelligence (IJCAI) 2019			
	Senti2Pop: Sentiment-Aware Topic Popularity Prediction on Social Media			
	Jinning Li, Yirui Gao, Xiaofeng Gao, Yan Shi, Guihai Chen In <i>IEEE International Conference on Data Mining</i> (ICDM) 2019			
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	DancingLines: An Analytical Scheme to Depict Cross-Platform Event Popular Tianxiang Gao, Weiming Bao, Jinning Li, X. Gao, B. Kong, Y. Tang, G. Chen, X. Li In International Conference on Database and Expert Systems Applications (DEXA) 2018	nty 🖂 👣		
Manuscripts	Unsupervised Interpretable Ideological Embedding with Variational Graph Autoencoders Jinning Li, Xinyi Liu, Ruijie Wang, Huajie Shao, Matthias Kirchner, Arslan Basharat, Dachun Sun, Yuchen			
	Yan, Jinyang Li, Shengzhong Liu, Hanghang Tong, and Tarek Abdelzaher Submission to <i>IEEE Transactions on Knowledge and Data Engineering</i> (TKDE)			
	Structure-Aware Adapter for Large Language Model Jinning Li, Pragaash Ponnusamy, Z. Sun, J. FitzGerald, J. Oh, C. Ma, W. Shen, C. Guo, Submission to <i>The 38th Annual AAAI Conference on Artificial Intelligence</i> (AAAI) 2024	T. Abdelzaher		
Research	University of Illinois at Urbana-Champaign Social Sensing, Data Mining, N	VLP		
Experience	Ph.D. Student. Advisor: Prof. Tarek Abdelzaher Aug 2020 - Present			
	• Unsupervised belief representation learning with VGAE on polarized networks.			
	• Developed DARPA Influence Campaign Awareness and SenseMaking system.			
	Purdue University Computer Vision, GANs			
	Research Intern. Advisor: Prof. Yexiang Xue	Sep - Dec 2018		
	Oil painting arts generation with multi-task generative adversarial network	orks.		
	Cornell University Counterfactual Machine Learning, Recommendation Systems			
	Research Intern. Advisor: Prof. Thorsten Joachims	Jul - Aug 2018		

• Rank 1 in Criteo Advertisement Placement Competition with the proposed model.

Shanghai Jiao Tong University Data Mining for Social Networks

Research Assistant. Advisor: Prof. Xiaofeng Gao

Jul 2017 - Jun 2019

- Cross-platform social popularity quantification and alignment.
- Sentiment-aware topic popularity prediction on social media.

Honors	Zhiyuan International Research Scholarship (First Prize).	2019
AND	Han-Ying-Ju-Hua Scholarship.	2018
Awards	Academic Excellence Scholarship of SJTU (First Prize).	2017, 2018
	International Interdisciplinary Contest in Modeling (Meritorious Winner).	2017
	Zhiyuan Honorary Scholarship.	2016, 2017
	International Mathematical Contest in Modeling (Outstanding Winner).	2015
	Dongrun-Yau International High School Science Award.	2015

ACADEMIC Teaching Assistant at CS122: Programming
Services Teaching Assistant at CS307: Operating System
Program Committee at AAAI Conference

Programming C, C++, Java, Python (TensorFlow, PyTorch, MXNet)
Proficiencies SQL, BigQuery, HTML, Javascript, Matlab, LEX,