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

EDUCATION

### University of Illinois at Urbana-Champaign

Aug 2020 - Present

Ph.D. Student in Computer Science, Department of Computer Science, The Grainger College of Engineering. Advisor: Prof. Tarek Abdelzaher

### Shanghai Jiao Tong University

Sep 2015 - Jun 2019

B.S. in Computer Science (Zhiyuan Honors Degree), ACM Honors Class, Department of Computer Science. Advisors: Prof. Yong Yu and Prof. Xiaofeng Gao

Research Interests Data Mining, Graph Mining, Natural Language Processing, Social Networks,

Computer Vision, Autonomous Driving.

Industry Experience Twitter Inc. (Cortex) | Research Intern Knowledge Graph, NLP May 2022 - Aug 2022

Knowledge Enhanced Language Model
 Develop a large-scale knowledge embedding for non-textual units (mentions, hashtags, urls, media) and use it to enhance the tweet representation learning of language model.

## Pony.ai Inc. | Machine Learning Engineer Perception Team

Jul 2019 - Aug 2020

- Fused Road Obstacle Classification
   Develop obstacle classification system to recognize cars, pedestrian, cyclists with camera and 3D point cloud, helping Autonomous Driving Cars recognize the environment.
- Trajectory Prediction
   Develop a real-time algorithm to predict the moving trajectory of obstacles.

YITU Tech Inc. | Research Intern Face Recognition, Super Resolution Feb - Jun 2019

- Improve Face Recognition with Super-Resolution Algorithm

Develop a super-resolution algorithm to restore low-resolution facial images while preserving the identification, and therefore improve the face recognition task.

#### **PUBLICATIONS**

# Unsupervised Belief Representation Learning with InfoVGAE 🚨 🗘

**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

NTULM: Enriching Social Media Text Representations with Non-Textual Units
Jinning Li\*, Shubhanshu Mishra\*, Ahmed El-Kishky, Sneha Mehta, Vivek Kulkarni
In W-NUT Workshop at International Conference on Computational Linguistics (COLING) 2022

Learning to Sample and Aggregate: Few-shot Reasoning over Temporal Knowledge Graph Ruijie Wang, zheng li, Dachun Sun, Shengzhong Liu, Jinning Li, Bing Yin, Tarek Abdelzaher In Thirty-sixth Conference on Neural Information Processing Systems (NIPS) 2022

Cost Function Learning in Memorized Social Nets with Cognitive Behavioral Asymmetry Anbing Mao, Jinning Li, Naira Hovakimyan, Tarek Abdelzaher, Christian Lebiere In *IEEE Transactions on Computational Social Systems* (TCSS) 2022

**Dissecting Cross-Layer Dependency Inference on Multi-Layered Inter-Dependent Networks** Yuchen Yan, Qinghai Zhou, **Jinning Li**, Tarek Abdelzaher, and Hanghang Tong In *International Conference on Information and Knowledge Management* (**CIKM**) 2022

Scribble-to-Painting Transformation with Multi-Task Generative Adversarial Networks 🚨 🗘 Jinning Li, Yexiang Xue

In International Joint Conference on Artificial Intelligence (IJCAI) 2019

## JINNING LI, DEPARTMENT OF COMPUTER SCIENCE, UIUC Senti2Pop: Sentiment-Aware Topic Popularity Prediction on Social Media 🛂 Jinning Li, Yirui Gao, Xiaofeng Gao, Yan Shi, Guihai Chen In IEEE International Conference on Data Mining (ICDM) 2019 DancingLines: An Analytical Scheme to Depict Cross-Platform Event Popularity 🖟 😯 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 ID Preserving Face Super-Resolution Generative Adversarial Networks 🚨 📢 Jinning Li, Yichen Zhou, Jie Ding, Cen Chen, Xulei Yang In IEEE Access 2020 University of Illinois at Urbana-Champaign Social Sensing, Data Mining, NLP Ph.D. Student. Advisor: Prof. Tarek Abdelzaher Aug 2020 - Present - Unsupervised Belief Representation Learning in Polarized Networks We develop an information-theoretical graph variational autoencoders to learn and disentangle the belief representation from heterogenous polarized social networks. - Influence Campaign Awareness and SenseMaking (INCAS) Develop a system to detect social influence compaign and predict people's response with text/graph mining and NLP techniques, cooperating with teams from DARPA, Lockheed Martin, USC, and UIUC (Prof. Jiawei Han, Prof. Heng Ji, and Prof. Hanghang Tong). Purdue University Computer Vision, GANs Research Intern. Advisor: Prof. Yexiang Xue Sep - Dec 2018 - Transform Scribbles to Oil Paintings with Multi-Task GANs We introduced Multi-Task Learning to the settings of Generative Adversarial Networks to address the sparsity problem when transforming scribbles into artistic oil paintings. Cornell University Counterfactual Machine Learning, Recommendation Systems Research Intern. Advisor: Prof. Thorsten Joachims Jul - Aug 2018 - Ad Placement Challenge on Criteo Dataset 🖓 🚨 🖻 We develop a joint method of Counterfactual Risk Minimization and MLE. Our score places **Rank 1** in NIPS 2017 Workshop: Criteo Ad Placement Challenge. Advanced Network Lab, Shanghai Jiao Tong University Data Mining for Social Networks Research Assistant. Advisor: Prof. Xiaofeng Gao Jul 2017 - Jun 2019 - Cross-Platform Popularity Analysis

RESEARCH

EXPERIENCE

- Cross-Platform Popularity Analysis
   Developed a scheme to quantify topic popularity and analyzed the mechanisms through which an event propagates among multiple social media.
- Sentiment-Aware Topic Popularity Prediction on Short Text based Social Media Developed a novel neural network to estimate public sentiment and integrated it with time series analysis to improve popularity prediction.

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 HTML & Javascript, Matlab, ŁTŁX,