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) Knowledge Graph, Natural Language Processing

Machine Learning Engineer Intern

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. Perception System for Autonomous Driving Vehicles

Machine Learning Engineer

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. Face Recognition, Super Resolution

Research Intern 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

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

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

 $Dissecting\ Cross-Layer\ Dependency\ Inference\ on\ Multi-Layered\ Inter-Dependent\ Nets$

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 GANs 🖟 🗘

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 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

Jinning Li, Yichen Zhou, Jie Ding, Cen Chen, Xulei Yang
In *IEEE Access* 2020

Research Experience

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.

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

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
 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, LTEX,