

JINNING LI

PHD IN COMPUTER SCIENCE, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

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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.

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

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
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

MANUSCRIPTS

NTULM: Enriching Social Media Text Representations with Non-Textual Units

Jinning Li*, Shubhanshu Mishra*, Ahmed El-Kishky, Sneha Mehta, Vivek Kulkarni
Submission to *International Conference on Computational Linguistics (COLING)* 2022

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 heterogeneous polarized social networks.
- Influence Campaign Awareness and SenseMaking (INCAS)
Develop a system to detect social influence campaign 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

- 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
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.

INDUSTRY **Twitter Inc. (Cortex)** *Knowledge Graph, Natural Language Processing***EXPERIENCE** **Research 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.

HONORS Zhiyuan International Research Scholarship (*First Prize*). 2019**AND** Han-Ying-Ju-Hua Scholarship. 2018**AWARDS** Academic Excellence Scholarship of SJTU (*First Prize*). 2017, 2018International 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, \LaTeX ,