

Dongyue LI

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EDUCATION

Northeastern University, Boston, USA

Ph.D. in Computer Science

Sep. 2021 - Present

Advisor: Hongyang R. Zhang

Shanghai Jiao Tong University, Shanghai, China

B.S. of Computer Science and Technology (Major)

Sep. 2016 – Jun. 2020

B.S. of Mathematics and Applied Mathematics (Minor)

Mar. 2018 – Jun. 2020

RESEARCH INTERESTS

My current research focuses on machine learning algorithms with weak supervision, including transfer learning, multitask learning, data augmentation, and contrastive learning. I am also interested in the generalization properties of neural networks and network analysis for social networks and epidemiology.

PUBLICATIONS

Optimal Intervention on Weighted Networks via Edge Centrality

Dongyue Li, Tina Eliassi-Rad, Hongyang R. Zhang.

KDD Workshop on Epidemiology meets Data Mining and Knowledge discovery (epiDAMIK), 2022.

Task Modeling: A Multitask Approach for Improving Robustness to Group Shifts

Dongyue Li, Huy L. Nguyen, Hongyang R. Zhang.

ICML Workshop on Principles of Distribution Shift (PODS), 2022.

Robust Fine-Tuning of Deep Neural Networks with Hessian-based Generalization Guarantees

Haotian Ju, Dongyue Li*, Hongyang R. Zhang.*

International Conference on Machine Learning (ICML), 2022.

Also appears in ICML Workshop on Updatable Machine Learning (UpML), 2022.

Improved Regularization and Robustness for Fine-tuning in Neural Networks

Dongyue Li, Hongyang R. Zhang.

Advances in Neural Information Processing Systems (NeurIPS), 2021.

Personalized and Environment-Aware Battery Prediction for Electric Vehicles

Dongyue Li, Guangyu Li*, Bo Jiang*, Zhengping Che, Yan Liu.*

KDD Workshop on Mining and Learning from Time Series (MiLeTS), 2021.

DTQAtten: Leveraging Dynamic Token-based Quantization for Efficient Attention Architecture

Tao Yang, Dongyue Li, Zhuoran Song, Yilong Zhao, Fangxin Liu, Zongwu Wang, Zhezhi He and Li Jiang.

Conference on Design, Automation and Test in Europe (DATE), 2022.

AdaptiveGCN: Efficient GCN Through Adaptively Sparsifying Graphs

Dongyue Li, Tao Tang*, Zhezhi He, Li Jiang.*

International Conference on Information and Knowledge Management (CIKM), 2021. Short paper.

PIMGCN: A ReRAM-Based Processing-in-Memory Accelerator for Graph Convolutional Network

Tao Tang, Dongyue Li, Yilong Zhao, Yibo Han, Zhezhi He, Li Jiang.

Design Automation Conference (DAC), 2021.

ReRAM-Sharing: Fine-Grained Weight Sharing for ReRAM-Based Deep Neural Network Accelerator

Dongyue Li, Zhuoran Song*, Zhezhi He, Li Jiang.*

International Symposium on Circuits and Systems (ISCAS), 2021.

(asterisk indicates equal contribution)

WORK EXPERIENCE

Full-time Researcher, *Shanghai Qi Zhi Institute, Shanghai, China*

Aug. 2020 - May. 2021

Supervisor: Li Jiang.

Worked on Graph Neural Networks, Efficient Machine Learning, and System Co-design.

Research Intern, *DiDi Chuxing AI Labs, Beijing, China*

Jul. 2019 - Sep. 2019

Supervisor: Yan Liu.

Worked on Spatio-Temporal Data Mining and Electric-Vehicle Battery Prediction.

MISCELLANEOUS

Services & Leadership Experiences:

- Reviewer for WWW 2022, KDD 2022, EpiDAMIK 2022, NeurIPS 2022
- Participant and Organization Volunteer of ACM TURC 2018
- Volunteer of Shanghai International Marathon 2017 and 2018

Awards & Scholarships:

- Excellent Undergraduate Thesis Award, 2020
- Merit Student of Shanghai Jiao Tong University, 2018
- National Endeavor Scholarship, 2016-2018
- Academic Excellence Scholarship of SJTU, 2016-2018

Skills:

- Python, C++, Matlab, Java, and deep learning software like Tensorflow and PyTorch
- Advanced mathematical theory in high-level algebra, mathematical analysis, probability, differential equations, and numerical optimization