Chunhui Zhang

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EDUCATION & EXPERIENCE

Ph.D. student, Computer Science   Sep. 2021 - Present
Brandeis University, Waltham, Massachusetts, US
the Michtom School of Computer Science
Advisors: Prof. Chuxu Zhang

B.S., Computer Science   Sep. 2017 - Jun. 2021
Northeastern University, China
School of Computer and Communication Engineering
GPA: 89.02/100.00

Research Assistant   Nov. 2018-Aug. 2021
the Chinese University of Hong Kong, China
Shenzhen Research Institute of Big Data (SRIBD)
Advisors: Prof. Lei Cheng, Prof. Zhen Li
Developed a differentiable method for neural architecture search that does require much
fewer GPU hours (80% computational cost/1,000 GPU hours reduction) on ImageNet.

RESEARCH INTEREST

- Generative Multimodal Learning *(e.g., my CIKM'22 on SSL Image Captioning)*
- Trustworthy Machine Learning and its Applications *(e.g., my ICLR'23 on Graphs)*
- Large Pretrained Model *(In-progress work)*

PAPER

- **Chunhui Zhang**, Yijun Tian, Mingxuan Ju, Zheyuan Liu, Yanfang Ye, Nitesh Chawla, and Chuxu Zhang. Chasing All-Round Graph Representation Robustness: Model, Training, and Optimization, *The 11th International Conference on Learning Representations (ICLR), 2023.*

- Zheyuan Liu*, **Chunhui Zhang***, Yijun Tian, Erchi Zhang, Chao Huang, Yanfang Ye and Chuxu Zhang. Fair Graph Representation Learning via Diverse Mixture-of-Experts, *International World Wide Web Conference (WWW), 2023.*
  Note: Co-first author Liu is an undergraduate who was mentored by me. A pleasant first experience as a mentor. Thanks Liu!

- Zhichun Guo, **Chunhui Zhang**, Yujie Fan, Yijun Tian, Chuxu Zhang, and Nitesh Chawla. Boosting Graph Neural Networks via Adaptive Knowledge Distillation, *Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI), 2023.*

- Yijun Tian, Kaiwen Dong, **Chunhui Zhang**, Chuxu Zhang, and Nitesh Chawla. Heterogeneous Graph Masked Autoencoders, *Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI), 2023.*

- Han Yue, **Chunhui Zhang**, Chuxu Zhang, and Hongfu Liu. Label-invariant Augmentation for Semi-Supervised Graph Classification, *Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS), 2022.*

- Yiyue Qian, **Chunhui Zhang**, Yiming Zhang, Qianlong Wen, Yanfang Ye, and Chuxu Zhang. Co-Modality Imbalanced Graph Contrastive Learning, *Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS), 2022.*

- **Chunhui Zhang**, Chao Huang, Youhuan Li, Xiangliang Zhang, Yanfang Ye, and Chuxu Zhang. Look Twice as Much as You Say: Scene Graph Contrastive Learning for Self-Supervised Image Caption Generation, *ACM International Conference on Information and Knowledge Management (CIKM), 2022.*

- Jiele Wu, **Chunhui Zhang**, Zheyuan Liu, Erchi Zhang, Steven Wilson, and Chuxu Zhang. GraphBERT: Bridging Graph and Text for Malicious Behavior Detection on Social Media, *IEEE International Conference on Data Mining (ICDM), 2022.*

- **Chunhui Zhang**, Chao Huang, Yijun Tian, Qianlong Wen, Zhongyu Ouyang, Youhuan Li, Yanfang Ye, Chuxu Zhang. Diving into Unified Data-Model Sparsity for Class-Imbalanced Graph Representation Learning, *Thirty-sixth Conference on Neural Information Processing Systems-New Frontiers in Graph Learning Workshop (NeurIPS GLFrontiers Workshop), 2022 & 37th AAAI Conference on Artificial Intelligence-Workshop on DL-Hardware Co-Design for AI Acceleration (AAAI DCAA workshop), 2023* *Best Paper Runner-up Award* .

- **Chunhui Zhang**, Hongfu Liu, Jundong Li, Yanfang Ye, Chuxu Zhang. Contrastive Graph Few-Shot Learning, *Thirty-sixth Conference on Neural Information Processing Systems-New Frontiers in Graph Learning Workshop (NeurIPS GLFrontiers Workshop), 2022.*

- Qianlong Wen, Zhongyu Ouyang, **Chunhui Zhang**, Yiyue Qian, Yanfang Ye, Chuxu Zhang. Adversarial Cross-View Disentangled Graph Contrastive Learning, *Thirty-sixth Conference on Neural Information Processing Systems-New Frontiers in Graph Learning Workshop (NeurIPS GLFrontiers Workshop), 2022.*

- **Chunhui Zhang***, Yongyuan Liang*, Yifan Jiang*. AdaSearch: Many-to-One Unified Neural Architecture Search via A Smooth Curriculum, *AAAI-22 Workshop: Learning Network Architecture During Training.*

- **Chunhui Zhang**, Xiaoming Yuan, Qianyun Zhang, Guangxu Zhu, Lei Cheng, and Ning Zhang. Towards Tailored Models on Private AIoT Devices: Federated Direct Neural Architecture Search, *IEEE Internet of Things Journal (IoTJ), Feb. 2022.*

- Qin Wang, Weibing Zhao, **Chunhui Zhang**, Liyue Zhang, Changmiao Wang, Zhen Li, Shuguang Cui, Guanbin Li. 3d Enhanced Multi-scale Network For Thoracic Organs Segmentation, *IEEE International Symposium on Biomedical Imaging Challenge, 2019*

SKILLS	**Programming Skills:** C++, Python, PyTorch, MATLAB, Java, Git, Hugging Face, LLM, PyG, DGL **Operating System:** Linux
ACTIVITIES	- Conference reviewer for NeurIPS2022, CIKM2022, ICDM2022, IEEE HPCC2020, AAAI2023 - Journal reviewer for IEEE Transactions on Network Science and Engineering, ACM Transactions on Intelligent Systems and Technology, Neurocomputing, Big Data
TEACHING EXPERIENCE	**Graph Mining**, with Prof. Chuxu Zhang, Feb. 2023 - May. 2023 **Deep Learning**, with Prof. Chuxu Zhang, Feb. 2022 - May. 2022
AWARDS	- CIKM Travel Grant Award 2022 - AAAI-DCAA 2023 Best Paper Runner-up Award 2023

Latest Update: March 2023