SIMIAO ZUO

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RESEARCH INTEREST

My research focuses on analyzing noisy data using techniques such as weak supervision and adversarial training. I am interested in natural language processing and point process.

EDUCATION

2019 - present	Georgia Institute of Technology **Ph.D. in Machine Learning**
2015 - 2019	The University of Texas at Austin **B.S. in Computer Science (with Highest Honors)** **B.S. in Mathematics (with Highest Honors)**

PUBLICATIONS

- **No Parameters Left Behind: Sensitivity Guided Adaptive Learning Rate for Training Large Neural Networks**
  Chen Liang, Haoming Jiang, **Simiao Zuo**, Pengcheng He, Xiaodong Liu, Jianfeng Gao, Weizhu Chen and Tuo Zhao
  International Conference on Learning Representations (ICLR), 2022

- **Taming Sparsely Activated Transformer with Stochastic Experts**
  Simiao Zuo, Xiaodong Liu, Jian Jiao, Young Jin Kim, Hany Hassan, Ruofei Zhang, Tuo Zhao and Jianfeng Gao
  International Conference on Learning Representations (ICLR), 2022

- **Adversarially Regularized Policy Learning Guided by Trajectory Optimization**
  Zhigen Zhao, **Simiao Zuo**, Tuo Zhao and Ye Zhao
  arxiv, 2021

- **Self-Training with Differentiable Teacher**
  Simiao Zuo[*], Yue Yu[*], Chen Liang, Haoming Jiang, Siawpeng Er, Chao Zhang, Tuo Zhao and Hongyuan Zha
  arxiv, 2021

- **ARCH: Efficient Adversarial Regularized Training with Caching**
  Simiao Zuo, Chen Liang, Haoming Jiang, Pengcheng He, Xiaodong Liu, Jianfeng Gao, Weizhu Chen and Tuo Zhao
  Findings of Empirical Methods in Natural Language Processing (EMNLP), 2021

- **Adversarial Regularization as Stackelberg Game: An Unrolled Optimization Approach**
  Simiao Zuo, Chen Liang, Haoming Jiang, Xiaodong Liu, Pengcheng He, Jianfeng Gao, Weizhu Chen and Tuo Zhao
  Empirical Methods in Natural Language Processing (EMNLP), 2021

- **Super Tickets in Pre-Trained Language Models: From Model Compression to Improving Generalization**
  Chen Liang, **Simiao Zuo**, Minshuo Chen, Haoming Jiang, Xiaodong Liu, Pengcheng He, Tuo Zhao

and Weizhu Chen
Association for Computational Linguistics (ACL), 2021

- **Fine-Tuning Pre-trained Language Model with Weak Supervision: A Contrastive-Regularized Self-Training Approach**
Yue Yu*, **Simiao Zuo***, Haoming Jiang, Wendi Ren, Tuo Zhao and Chao Zhang
North American Chapter of the Association for Computational Linguistics (NAACL), 2021

- **A Hypergradient Approach to Robust Regression without Correspondence**
Yujia Xie*, Yixiu Mao*, **Simiao Zuo**, Hongteng Xu, Xiaojie Ye, Tuo Zhao and Hongyuan Zha
International Conference on Learning Representations (ICLR), 2021

- **Transformer Hawkes Process**
Simiao Zuo, Haoming Jiang, Zichong Li, Tuo Zhao and Hongyuan Zha
International Conference on Machine Learning (ICML), 2020

- **Tensor maps for synchronizing heterogeneous shape collections**
Qixing Huang, Zhenxiao Liang, Haoyun Wang, **Simiao Zuo** and Chandrajit Bajaj
ACM Transactions on Graphics (TOG), 2019

PROFESSIONAL EXPERIENCES

2022.1 - 2022.4	Applied scientist intern, Amazon
2021.5 - 2021.8	Data scientist intern, Microsoft
2020.9 - 2020.12	Applied scientist intern, Amazon
2020.6 - 2020.8	Research intern, Microsoft

I served as a reviewer for AISTATS, ICLR, ICML, KDD and NeurIPS.

TEACHING EXPERIENCES

Teaching Assistant:

- Basic Statistical Methods (ISyE 3030), Fall 2019/Spring 2020

REFERENCES

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	Georgia Institute of Technology
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