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

- **Self-Training as Stackelberg Game: An End-to-End Differentiable Approach**
  Simiao Zuo*, Yue Yu*, Chen Liang, Haoming Jiang, Siawpeng Er, Chao Zhang, Tuo Zhao and Hongyuan Zha
  Submitted to *Knowledge Discovery and Data Mining (KDD)*, 2021

- **Context-Aware Query Rewriting for Improving Users' Search Experience on E-commerce Websites**
  Simiao Zuo, Qingyu Yin, Yiwei Song, Bing Yin, Chao Zhang and Tuo Zhao
  Submitted to *Knowledge Discovery and Data Mining (KDD)*, 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
  Submitted to *Association for Computational Linguistics (ACL)*, 2021

- **Adversarial Training as Stackelberg Game: An Unrolled Optimization Approach**
  Simiao Zuo, Chen Liang, Haoming Jiang, Xiaodong Liu, Pengcheng He, Jianfeng Gao, Weizhu Chen and Tuo Zhao
  Submitted to *North American Chapter of the Association for Computational Linguistics (NAACL)*, 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
  Submitted to *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), 2020

- **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

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

TEACHING EXPERIENCES

Teaching Assistantship:

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

REFERENCES

Tuo Zhao   Assistant Professor
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Qixing Huang   Assistant Professor
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