




Xiaotian Han

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I am currently a 3rd-year Ph.D. student in the Department of Computer Science and Engineering at Texas A&M University. I am working at the DATA Lab under the supervision of Prof. Xia (Ben) Hu. My research focuses on graph learning, fairness in machine learning and automated machine learning. Specifically, my research lies in the following topics:

- **Graph Learning:** orthogonal graph representation, graph augmentation
- **Fairness:** egocentric fairness and structure fairness in graph neural network
- **AutoML:** automated recommendation, automated information extraction

EDUCATION	Texas A&M University <i>Advisor: Xia "Ben" Hu</i> <i>Ph.D. in Computer Science</i> <i>Department of Computer Science and Engineering, College Station, TX</i>	<i>Aug. 2019 - Present</i>
	Beijing University of Posts and Telecommunications <i>Advisor: Chuan Shi</i> <i>M.S. in Computer Science</i> <i>School of Computer Science, Beijing, China</i>	<i>Sep. 2016 - June 2019</i>
	Shandong University <i>B.S. in Communication Engineering,</i> <i>School of Information Science and Engineering, Jinan, Shandong, China</i>	<i>Sep. 2011 - June 2015</i>
EXPERIENCE	Graduate Research Assistant <i>Texas A&M University, College Station, TX</i> <i>Research topic: Graph Learning; Fairness; AutoML</i> <ul style="list-style-type: none">– <i>Structure fairness in graph neural network</i>– <i>AutoRec. Develop automated recommendation open-source package</i>– <i>AutoIE. Construct knowledge graph automatically</i>	<i>August 2019 - Present</i>
	Research Intern <i>Microsoft Research Asian (MSRA), Beijing, China</i> <i>Research topic: AutoML</i> <ul style="list-style-type: none">– <i>Hyperparameter search with Bayesian optimization</i>	<i>March 2019 - Jun.2019</i>
	Research Intern <i>Search Business Department, Alibaba Group, Hangzhou, China</i> <i>Research topic: Recommender system</i> <ul style="list-style-type: none">– <i>Design recommender system based on heterogeneous graphs</i>– <i>Adopt a unified semantic embedding for heterogeneous graphs to establish the user and the query embedding for query recommendation</i>	<i>June 2018 - Sep.2018</i>

UNDER REVIEW

1. **Xiaotian Han**; Tianlong Chen; Kaixiong Zhou; Zhimeng Jiang; Zhangyang Wang; Xia Hu, You Only Debias Once: Towards Flexible Accuracy-Fairness Trade-offs, (submitted to ICML 2022)
2. **Xiaotian Han**; Zhimeng Jiang; Ninghao Liu; Xia Hu, G-Mixup: Graph Augmentation for Graph Classification, (submitted to ICML 2022)
3. **Xiaotian Han**; Jundong Li; Kaixiong Zhou; Xia Hu, FairGNN: Towards the Structure Fairness of Graph Neural Network (Preprint)

PUBLICATIONS

1. Zhimeng Jiang, **Xiaotian Han**; Chao Fan; Fan Yang; Xia Hu, Generalized demographic parity for group fairness, **ICLR 2022**
2. **Xiaotian Han**; Zhimeng Jiang; Ninghao Liu; Xia Hu, Graph Representation Learning via Unsupervised Rate Reduction Maximization, **The Web Conference 2022**
3. Ting-Hsiang Wang; Qingquan Song; **Xiaotian Han**; Zirui Liu; Jin Haifeng; Xia Hu, AutoRec: An Automated Recommender System, **Recsys, 2020**
4. Xiangfeng Li; Shenghua Liu; Zifeng Li; **Xiaotian Han**; Chuan Shi; Bryan Hooi; He Huang; Xueqi Cheng, FlowScope: Spotting Money Laundering Based on Graphs, **AAAI, 2020**
5. Ding Xiao; Li Song; Ruijia Wang; **Xiaotian Han**; Yanan Cai; Chuan Shi, Embedding geographic information for anomalous trajectory detection, **World Wide Web, 2020**
6. Shaohua Fan; Junxiong Zhu; **Xiaotian Han**; Chuan Shi; Linmei Hu; Biyu Ma; Yongliang Li, Metapath-guided heterogeneous graph neural network for intent recommendation, **KDD, 2019**
7. Chuan Shi; **Xiaotian Han**; Li Song; Xiao Wang; Senzhang Wang; Junping Du; Philip, S Yu, Deep collaborative filtering with multi-aspect information in heterogeneous networks, **IEEE TKDE, 2019**
8. **Xiaotian Han**; Chuan Shi; Lei Zheng; Philip, S Yu; Jianxin Li; Yuanfu Lu, Representation learning with depth and breadth for recommendation using multi-view data, **APWeb-WAIM, 2018**
9. **Xiaotian Han**; Chuan Shi; Senzhang Wang; Philip, S Yu; Li Song, Aspect-Level Deep Collaborative Filtering via Heterogeneous Information Networks, **IJCAI, 2018**
10. Li Song; Ruijia Wang; Ding Xiao; **Xiaotian Han**; Yanan Cai; Chuan Shi, Anomalous trajectory detection using recurrent neural network, **ADMA,2018, Best Paper Awards**

AWARDS

- | | |
|---|------------------|
| 2nd Student Scholarship
<i>Shandong University, Jinan, Shandong, China</i> | <i>2012-2015</i> |
| 1st Student Scholarship
<i>Beijing University of Posts and Telecommunications, Beijing, China</i> | <i>2017</i> |
| 1st National Graduate Scholarship
<i>Beijing University of Posts and Telecommunications, Beijing, China</i> | <i>2018</i> |

SERVICES

Conference Review

AAAI2021, IJCAI2021, AAAI2022, SIGIR2022, ICML2022