Qiaoyu Tan

Email: qytan@tamu.edu
Github: https://github.com/qiaoyu-tan
Personal Website: https://qiaoyu-tan.github.io/

RESEARCH TOPICS

Graph Machine Learning: Graph Contrastive Learning, Unsupervised/Generative Graph Representation Learning

Recommender Systems: Graph-based Recommendation Engine, Behavior Sequence-based Sequential Recommendation

Model Compression: Model Compression for Graph Neural Networks, Deep Compression for Sequential Models

EDUCATION

Texas A&M University, College Station, TX   Aug 2018 - July 2023 (expected)
- Ph.D., Computer Engineering
- Advisor: Dr. Xia (Ben) Hu

University of California, Berkeley, Berkeley, CA   June 2015 - Aug 2015
- Summer Session Student
- Studied Discrete Mathematics and Probability Theory

Southwest University, China   Sept 2013 - July 2017
- Bachelor of Engineering, Computer Science and Technology (Summa Cum Laude)
- GPA: 3.97/4.0

EXPERIENCES

Research Intern   Samsung Research America
May 2022 - August 2022   Mountain View, CA
- Develop an effective model compression model for deep landscape forecasting.

Visiting Student   The Hong Kong Polytechnic University
Nov 2020 - August 2021   Hung Hom, Hong Kong
- Develop a tailored graph neural network model for attributed network embedding.
- Explore an alternative non-recursive message aggregation mechanism for graph representation learning.

Research Intern   Alibaba DAMO Academy
June 2019 - Nov 2019   Hangzhou, Zhejiang, China
- Develop a sparse-interest network to extract user's diverse interest preferences for personalized recommendation.

PUBLICATIONS

1. **Qiaoyu Tan**, Ninghao Liu, Xiao Huang, Rui Chen, Soo-Hyun Choi and Xia Hu. MGAE: Masked Autoencoders for Self-Supervised Learning on Graphs, (under review), 2022

2. Shuang Zhou, Xiao Huang, Ninghao Liu, **Qiaoyu Tan** and Fu-Lai Chung. Unseen Anomaly Detection on Networks via Multi-Hypersphere Learning, CIKM, 2022

3. **Qiaoyu Tan**, Jianwei Zhang, Jiangchao Yao, Ninghao Liu, Jingren Zhou, Hongxia Yang and Xia Hu. Sparse-Interest Network for Sequential Recommendation, WSDM, 2021

4. **Qiaoyu Tan**, Jianwei Zhang, Ninghao Liu, Xiao Huang, Hongxia Yang, Jingren Zhou and Xia Hu. Dynamic Memory based Attention Network for Sequential Recommendation, AAAI, 2021

5. Shuang Zhou, **Qiaoyu Tan**, Zhiming Xu, Xiao Huang and Fu-lai Chung. Subtractive Aggregation for Attributed Anomaly Detection, CIKM, 2021

6. Huachi Zhou, **Qiaoyu Tan**, Xiao Huang, Kaixiong Zhou and Xiaoling Wang. Temporal Augmented Graph Neural Networks for Session-based Recommendation, SIGIR, 2021

7. **Qiaoyu Tan**, Ninghao Liu, Hongxia Yang, Jingren Zhou, Xia Hu. Learning to Hash with Graph Neural Networks for Recommender Systems, WWW, 2020

8. Ninghao Liu, **Qiaoyu Tan**, Yuening Li, Hongxia Yang, Jingren Zhou and Xia Hu. Is a Single Vector Enough? Exploring Node Polysemy for Network Embedding, KDD, 2019

9. **Qiaoyu Tan**, Ninghao Liu and Xia Hu. Deep Representation Learning for Social Network Analysis, Frontiers in Big Data, 2019

10. **Qiaoyu Tan**, Guoxian Yu, Jun Wang, Carlotta Domeniconi and Xiangliang Zhang. Individual and Commonality based Multi-View Multi-Label Learning, IEEE Transactions on Cybernetics, 2019

11. **Qiaoyu Tan**, Guoxian Yu, Carlotta Domeniconi, Jun Wang and Zili Zhang. Incomplete Multi-View Weak-Label Learning, IJCAI, 2018

12. **Qiaoyu Tan**, Guoxian Yu, Carlotta Domeniconi, Jun Wang and Zili Zhang. Multi-View Weak-Label based on Matrix Completion, SDM, 2018

PROJECT

- CAREER: Human-Centric Big Network Embedding (NSF)   July 2018 - Now
- A General Feature Learning Framework for Dynamic Attributed Networks (NSF) July 2019 - July 2020
- Deep Attributed Network Embedding (Alibaba)   June 2018 - June 2019
- National Innovation and Entrepreneurship Research Project June 2016 - May 2017 - Designed a content-based image retrieval system using Java

SERVICE

Reviewer & Program committee member
- AAAI Conference on Artificial Intelligence (AAAI) (2021, 2022)
- International Joint Conference on Artificial Intelligence (IJCAI) (2021, 2022)
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD2022)
- The 1st Workshop on Data Science and Artificial Intelligence on Responsible Recommendation (DSAI4RRS2022)
- ACM International Conference on Web Search and Data Mining (WSDM2020)

External Reviewers
- AAAI Conference on Artificial Intelligence (AAAI) (2019, 2020)
- International Joint Conference on Artificial Intelligence (IJCAI) (2019, 2020)
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD2021)
- Conference on Neural Information Processing Systems (NeurIPS) (2020, 2021)
- International Conference on Machine Learning (ICML2021)
- International Conference on Learning Representations (ICLR2021)

SKILLS

- Python (PyTorch/Tensorflow), MATLAB, C++, SQL, CUDA