Yang Xuan

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EDUCATION

Zhejiang University	Sep 2020 - Mar 2023
Computer Science Master College of Computer Science & Technology	Hangzhou

Overall GPA: 3.98/4.00

Zhejiang University	Sep 2016 - Jun 2020
Digital Media Technology Bachelor College of Computer Science & Technology	Hangzhou

Overall GPA: 3.85/4.00 The last two years GPA: 3.98/4.00 (top 10%)

PUBLICATIONS

- **Xuan Yang**, Yang Yang, Jintao Su, Yifei Sun, Shen Fan, Zhongyao Wang, Jun Zhan, and Jingmin Chen. Who's Next: Rising Star Prediction via Diffusion of User Interest in Social Networks. In IEEE Transaction on Knowledge and Data Engineering, doi: 10.1109/TKDE.2022.3151835, 2022

- Jintao Su, Yang Yang, **Xuan Yang**, Yuxiao Dong and ChilieTan "DeepGraphlet:Estimating Local Graphlet Frequencies with Graph Neural Networks". Under review.

- **Xuan Yang**, Yang Yang, Chenhao Tan, Yinghe Lin, Zhengzhe Fu, Fei Wu, Yueting Zhuang. Unfolding and Modeling the Recovery Process after COVID Lockdowns. Under review.

- **Xuan Yang**, Quanjin Tao, Xiao Feng, Donghong Cai, Xiang Ren, and Yang Yang. Multimodal Learning with Graph Alignment on social media. Preprint.

- Teng Ke, Yang Yang, Shiliang Pu, **Xuan Yang**, Quanjin Tao, Yifei Sun, Weihao Jiang, Hui Wang and Yingye Yu. "Detecting Telecommunication Frauds by Human-in-the-Loop Graph Neural Networks". Under review.

- Taoran Fang, Zhiqing Xiao, Chunping Wang, Jiarong Xu, **Xuan Yang**, Yang Yang. DropMessage: Unifying Random Dropping for Graph Neural Networks. Under review.

RESEARCH EXPERIENCE

Multimodal learning with graph alignment on social media	Jun 2022 - Present
Digital media Computing & Design Lab, Zhejiang University	Hangzhou

- Incorporate the social network information with text and image information to enhance user representation learning on social media, create the first large-scale multimodal social media dataset with graph.
- Design a multi-step graph alignment pretrain task to allow these three modalities to supervise each other's learning and enhance mutual information. An efficient graph multimodal pretrain framework with GNN and Transformers.

Estimate Graphlet Counts on Billion-scale Graphs	May 2021 - Dec 2021
Digital media Computing & Design Lab, Zhejiang University	Hangzhou

- Designed DeepGraphlet with k-tuple feature and multi-task to estimate the graphlet counting.
- Experiments on real graphs demonstrate that our method improves the estimation accuracy 60+%. It achieves 20x speedup on hundreds of millions-scale graphs, and handles graphs with billions of edges.

Unfolding and Modeling the Economic Recovery after COVID Lockdowns	Jun 2021 - Feb 2022
Digital media Computing & Design Lab, Zhejiang University	Hangzhou

- Proposed a novel computational method based on electricity data to study the recovery process: a recovery index for sector(economic) recovery evaluation; a change-point algorithm for non-subjective policy assessment; a graph-learning based recovery prediction model and counterfactual experiments for policy-making support.

- We conducted a case study on Hangzhou city, and find inspiring results.

Alleviate Recommendation System Disequilibrium   Jan 2021 - May 2021

Data and Technology Department, Alibaba   Hangzhou

- Proposed the rising star problem in online maketing and designed RiseNet: a GNN-based framework with self-supervised multi-task learning to handle the complexity of dynamic graph learning; a coupled mechanism to solve multi-modal time series data fusion problem.
- Validated model on real scenario-Taocode, improved effectiveness 30+% as measured by F1 score.

INTERNSHIP EXPERIENCE

Shanren Technology   Feb 2022 - Aug 2022

Research Scientist, Blockchain Crime Department

- Identification of fraudulent addresses in the blockchain, anomaly detection of transaction records, and cooperation with the police to solve money laundering and online fraud cases involving billions of RMB.

Data and Technology Department, Alibaba Group   Oct 2020 - Dec 2021

Machine Learning Intern Data Assets and Algorithm team   Hangzhou

- Designed a family marketing model and analyzed the family recommendation on Taobao platform;
- Based on the purchase and sharing datasets of Taobao, built the Taocode recommendation datasets (billion-scale records) and designed the algorithm for selecting items for the "Xiao heihe" & "Tao jianghu" functions on Taobao App, new strategy boosted CTR by 2.3% over old strategy.

Center for Magnetic Nanotechnology, Stanford University   Jan 2019 - Feb 2019

Research Intern, Probing Protein-Protein Interactions with High-Throughput GMR   California
Protein Arrays Project

- I helped collect the amount of seven viruses in serum of 300 patients through GMR biosensors to evaluate how the virus impacts the liver cancer. I proposed to use several machine learning models to explore the relationships between seven viruses and liver cancer and the results showed that seven viruses have little to do with liver cancer detection.

Biomedical Institute for Global Health Research and Technology at NUS   Jul 2018 - Aug 2018

Research Intern , the Taste Healthy project, Big Brain   Singapore

- I was mainly responsible for the APP development, and I used the crawler to collect the data from web, trained ResNet on the cleaned dataset and applied it on the food image identification.

LEADERSHIP EXPERIENCE

President of Zhejiang University Creative Media Student Association   Sep 2017 - Jun 2018

- Organize multimedia-related activities in the campus, and successfully organize activities such as "Hugging Me" to try to eliminate prejudice between people.

MISCELLANEOUS

- **Skills:** Python; Pytorch; C++; 3D Modeling (Zbrush, Maya); Game building (VR programming; Unreal Engine)
- **Languages:** TOFEL 106 (Reading 30,Listening 29,Speaking 22,Writing 25)
- **Interests:** Photography (PS/ PR); Piano; Painting; Basketball