YANG YANG

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POSITION HELD

Zhejiang University   *Jan. 2019 - present*
Associate Professor, Dean of Artificial Intelligence
College of Computer Science and Technology

Zhejiang University   *Jul. 2016 - Dec. 2018*
Assistant Professor
College of Computer Science and Technology

EDUCATION

Tsinghua University   *Aug. 2011 - Jul. 2016*
Ph.D. in Computer Science and Technology
Advisor: Jie Tang and Juanzi Li

Cornell University   *Aug. 2012 - Feb. 2013*
Visiting Student, Department of Computer Science
Advisor: John Hopcroft

University of Leuven   *Aug. 2013 - Nov. 2013*
Visiting Student, Department of Computer Science
Advisor: Marie-Francine Moens and Walter Luyten

Wuhan University   *Aug. 2007 - Jul. 2011*
Bachelor in Software Engineering

RESEARCH INTERESTS

Artificial intelligence in networks, deep learning for large-scale dynamic time-series, and computational social science.

PUBLICATIONS

· Haoran Deng, **Yang Yang**, Jiahe Li, Haoyang Cai, Shiliang Pu, and Weihao Jiang Accelerating Dynamic Network Embedding with Billions of Parameter Updates to Milliseconds. In Proceedings of the Twenty-Ninth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'23), 2023.

· Donghong Cai, Junru Chen, **Yang Yang**, Teng Liu, and Yafeng Li MBrain: A Multi-channel Self-Supervised Learning Framework for Brain Signals. In Proceedings of the Twenty-Ninth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'23), 2023.

· Yuxuan Cao, Jiarong Xu, Carl Yang, Jiaan Wang, Yunchao Mercer Zhang, Chunping Wang, Lei Chen, and **Yang Yang**. When to Pre-Train Graph Neural Networks? An Answer from Data Generation Perspective! In Proceedings of the Twenty-Ninth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'23), 2023.

· Xuan Yang, **Yang Yang**, Chenhao Tan, Yinghe Lin, Zhengzhe Fu, Fei Wu, and Yueting Zhuang. Unfolding and Modeling the Recovery Process after COVID Lockdowns. In Nature Scientific Reports, 2023.

· Taoran Fang, Zhiqing Xiao, Chunping Wang, Jiarong Xu, Xuan Yang, and **Yang Yang**. DropMessage: Unifying Random Dropping for Graph Neural Networks. In Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI'23), 2023 **(Distinguished Paper Award)**.

· Ziwei Chai, **Yang Yang**, Jiawang Dan, Sheng Tian, Changhua Meng, Weiqiang Wang, and Yifei Sun. Towards Learning to Discover Money Laundering Sub-network in Massive Transaction Network. In Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI'23), 2023.

· Junru Chen*, **Yang Yang***, Tao Yu, Yingying Fan, Xiaolong Mo, and Carl Yang. BrainNet: Epileptic Wave Detection from SEEG with Hierarchical Graph Diffusion Learning. In Proceedings of the Twenty-Eighth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'22), 2022 (*: equal contribution).

· 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 (TKDE), 2022.

· Jiarong Xu, **Yang Yang**, Junru Chen, Xin Jiang, Chunping Wang, Jiangang Lu, and Yizhou Sun. Unsupervised Adversarially Robust Representation Learning on Graphs. In Proceedings of the 34th AAAI Conference on Artificial Intelligence (AAAI'22), 2022.

· Ziwei Chai*, Siqi You*, **Yang Yang**, Shiliang Pu, Jiarong Xu, Haoyang Cai, and Weihao Jiang. Can Abnormality be Detected by Graph Neural Networks? In Proceedings of the 31st International Joint Conference on Artificial Intelligence (IJCAI'22), 2022 (*: equal contribution).

· Yifei Sun, Haoran Deng, **Yang Yang**, Chunping Wang, Jiarong Xu, Renhong Huang, Linfeng Cao, Yang Wang, and Lei Chen. Beyond Homophily: Structure-aware Path Aggregation Graph Neural Network. In Proceedings of the 31st International Joint Conference on Artificial Intelligence (IJCAI'22), 2022.

· Jiarong Xu, Yizhou Sun, Xin Jiang, Yanhao Wang, Chunping Wang, Jiangang Lu, and **Yang Yang**. Blindfolded Attackers Still Threatning: Strict Black-Box Adversarial Attacks on Graphs. In Proceedings of the 34th AAAI Conference on Artificial Intelligence (AAAI'22), 2022.

· Jiarong Xu, **Yang Yang**, Shiliang Pu, Yao Fu, Jun Feng, Weihao Jiang, Jiangang Lu, and Chunping Wang. NetRL: Task-aware Network Denoising via Deep Reinforcement Learning. In IEEE Transaction on Knowledge and Data Engineering (TKDE), 2021.

· Ziqiang Cheng, **Yang Yang**, Shuo Jiang, Wenjie Hu, Zhangchi Ying, Ziwei Chai, and Chunping Wang. Time2Graph+: Bridging Time Series and Graph Representation Learning via Multiple Attentions. In IEEE Transaction on Knowledge and Data Engineering (TKDE), 2021.

· Xuanwen Huang, **Yang Yang**, Ziqiang Cheng, Shen Fan, Zhongyao Wang, Juren Li, Jun Zhang, and Jingmin Chen. How Powerful are Interest Diffusion on Purchasing Prediction: A Case Study of Taocode. In Proceedings of the 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'21), 2021.

· Ping Shao, **Yang Yang**, Shengyao Xu, and Chunping Wang. Network Embedding via Motifs. In ACM Transactions on Knowledge Discovery from Data (TKDD), 2021.

· Wenjie Hu, **Yang Yang**, Ziqiang Cheng, Carl Yang, and Xiang Ren. Time-Series Event Prediction with Evolutionary State Graph. In Proceedings of the 14th ACM International Conference on Web Search and Data Mining (WSDM'21), 2021.

· Qinkai Zheng, Xu Zou, Yuxiao Dong, Yukuo Cen, Da Yin, Jiarong Xu, **Yang Yang**, and Jie Tang. Graph Robustness Benchmark: Benchmarking the Adversarial Robustness of Graph Machine Learning. In Proceedings of the 35th Conference on Neural Information Processing Systems (NeurIPS21), 2021.

· Ziqiang Cheng, **Yang Yang**, Wei Wang, Wenjie Hu, Yueting Zhuang, and Guojie Song. Time2Graph: Revisiting Time Series Modeling with Dynamic Shapelets. In Proceedings of the 32nd AAAI Conference on Artificial Intelligence (AAAI'20), 2020.

· Wenjie Hu, **Yang Yang**, Jianbo Wang, Xuanwen Huang, and Ziqiang Cheng. Understanding Electricity-Theft Behavior via Multi-Source Data. In Proceedings of the 29th World Wide Web Conference (WWW'20), 2020.

· Jiarong Xu, **Yang Yang**, Chunping Wang, Zongtao Liu, Jing Zhang, Lei Chen, and Jiangang Lu. Robust Network Enhancement from Flawed Networks. In IEEE Transaction on Knowledge and Data Engineering (TKDE), 2020.

· Xiaobin Tang, Jing Zhang, Bo Chen, **Yang Yang**, Hong Chen, and Cuiping Li. BERT-INT: A BERT-based Interaction Model For Knowledge Graph Alignment. In Proceedings of the 30th International Joint Conference on Artificial Intelligence (IJCAI'20), 2020.

· **Yang Yang**, Yuhong Xu, Yizhou Sun, Yuxiao Dong, Fei Wu and Yueting Zhuang. Mining Fraudsters and Fraudulent Strategies in Large-Scale Mobile Social Networks. In IEEE Transaction on Knowledge and Data Engineering (TKDE), 2019.

· **Yang Yang***, Yuhong Xu*, Chunping Wang, Yizhou Sun, Fei Wu, Yueting Zhuang and Ming Gu. Understanding Fraudulent Behavior in Peer-to-Peer Lending. In Proceedings of the Twenty-Eighth Conference on Information and Knowledge Management (CIKM'19), 2019 (*: equal contribution).

· Zongtao Liu, **Yang Yang**, Wei Huang, Zhongyi Tang, Ning Li and Fei Wu. How Do Your Neighbors Disclose Your Information: Social-Aware Time Series Imputation. In Proceedings of the Twenty-Eighth World Wide Web Conference (WWW'19), 2019.

· Ziqiang Cheng, **Yang Yang**, Chenhao Tan, Denny Cheng, Alex Cheng, and Yueting Zhuang. What Makes a Good Team? A Large-scale Study on the Effect of Team Composition in Honor of Kings. In Proceedings of the Twenty-Eighth World Wide Web Conference (WWW'19, short paper), 2019.

· **Yang Yang**, Zongtao Liu, Chenhao Tan, Fei Wu, Yueting Zhuang, and Yafeng Li. To Stay or to Leave: Churn Prediction for Urban Migrants in the Initial Period. In Proceedings of the Twenty-Seventh World Wide Web Conference (WWW'18), 2018.

· **Yang Yang**, Chenhao Tan, Zongtao Liu, Fei Wu, and Yueting Zhuang. Urban Dreams of Migrants: A Case Study of Migrant Integration in Shanghai. In Proceedings of the 32th AAAI Conference on Artificial Intelligence (AAAI'18), 2018.

· Lekui Zhou, **Yang Yang**, Xiang Ren, Fei Wu, and Yueting Zhuang. Dynamic Social Network Embedding by Modeling Triadic Closure Process. In Proceedings of the 32th AAAI Conference on Artificial Intelligence (AAAI'18), 2018.

· Rui Feng*, **Yang Yang***, Wenjie Hu, Fei Wu, and Yueting Zhuang. Representation Learning for Scale-free Networks. In Proceedings of the 32th AAAI Conference on Artificial Intelligence (AAAI'18) (*: equal contribution), 2018.

· Menghan Wang, Xiaolin Zheng, **Yang Yang**, and Kun Zhang. Collaborative Filtering with Social Exposure: A Modular Approach to Social Recommendation. In Proceedings of the 32th AAAI Conference on Artificial Intelligence (AAAI'18), 2018.

· Jun Feng, Minlie Huang, Li Zhao, **Yang Yang**, and Xiaoyan Zhu. Reinforcement Learning for Relation Extraction from Noisy Data. In Proceedings of the 32th AAAI Conference on Artificial Intelligence (AAAI'18), 2018.

· **Yang Yang**, Jie Tang, and Juanzi Li. Learning to Infer Competitive Relationships in Heterogeneous Networks. In ACM Transactions on Knowledge Discovery from Data (TKDD), 2017.

· Yuxiao Dong, Nitesh V. Chawla, Jie Tang, **Yang Yang**, and Yang Yang. User Modeling on Demographic Attributes in Large-Scale Mobile Social Networks. In ACM Transactions on Information Systems (TOIS), 2017.

· **Yang Yang**, Jia Jia, Boya Wu, and Jie Tang. Social Role-Aware Emotion Contagion in Image Social Networks. In Proceedings of the 30th AAAI Conference on Artificial Intelligence (AAAI'16), 2016.

· Jun Feng, Minlie Huang, **Yang Yang**, and Xiaoyan Zhu. GAKE: Graph Aware Knowledge Emebdding. In Proceedings of the 27th International Conference on Computational Linguistics (COLING'16), 2016.

· Boya Wu, Jia Jia, **Yang Yang**, Peijun Zhao, Jie Tang, and Qi Tian. Inferring Emotional Tags From Social Images With User Demographics. In IEEE Transactions on Multimedia (TMM) , 2016.

· **Yang Yang**, Yizhou Sun, Jie Tang, Bo Ma, and Juanzi Li. Entity Matching across Heterogeneous Sources. In Proceedings of the 21st ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'15), 2015.

· **Yang Yang**, Jie Tang, Cane Wing-Ki Leung, Yizhou Sun, Qicong Chen, Juanzi Li, and Qiang Yang. RAIN: Social Role-Aware Information Diffusion. In Proceedings of the 29th AAAI Conference on Artificial Intelligence (AAAI'15), 2015.

· **Yang Yang** and Jie Tang. Beyond Query: Interactive User Intention Understanding. In Proceedings of the 15th International Conference on Data Mining (ICDM'15, acceptance rate=*8%*), 2015.

· Boya Wu, Jia Jia, **Yang Yang**, Peijun Zhao, and Jie Tang. Understanding the Emotions Behind Social Images: Inferring with User Demographics. In Proceedings of 2015 IEEE International Conference on Multimedia and Expo (ICME'15), 2015.

- **Yang Yang**, Jia Jia, Shumei Zhang, Boya Wu, Qicong Chen, Juanzi Li, Chunxiao Xing, and Jie Tang. How Do Your Friends on Social Media Disclose Your Emotions? In Proceedings of the 28th AAAI Conference on Artificial Intelligence (AAAI'14), 2014.

- **Yang Yang**, Walter Luyten, Lu Liu, Marie-Francine Moens, Jie Tang, and Juanzi Li. Forecasting Potential Diabetes Complications. In Proceedings of the 28th AAAI Conference on Artificial Intelligence (AAAI'14), 2014.

- Yuxiao Dong, **Yang Yang**, Jie Tang, Yang Yang, and Nitesh V. Chawla. Inferring User Demographics and Social Strategies in Mobile Social Networks. In Proceedings of the 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'14), 2014.

- **Yang Yang**, Jianfei Wang, Yutao Zhang, Wei Chen, Jing Zhang, Honglei Zhuang, Zhilin Yang, Bo Ma, Zhanpeng Fang, Sen Wu, Xiaoxiao Li, Debing Liu, and Jie Tang. SAE: Social Analytic Engine for Dynamic Networks, In Proceedings of the 19th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'13, demo paper), 2013.

- **Yang Yang**, Jie Tang, Jacklyne Keomany, Yanting Zhao, Ying Ding, Juanzi Li, and Liangwei Wang. Mining Competitive Relationships by Learning across Heterogeneous Networks, In Proceedings of the 21st Conference on Information and Knowledge Management (CIKM'12, acceptance rate=*13.4%*), 2012.

- Jie Tang, Bo Wang, **Yang Yang**, Po Hu, Yanting Zhao, Xinyu Yan, Bo Gao, Minlie Huang, Peng Xu, Weichang Li, and Adam K. Usadi. PatentMiner: Topic-driven Patent Analysis and Mining, In Proceedings of the 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'12), 2012.

- Tieyun Qian, **Yang Yang**, and Shuo Wang. Refining Graph Partitioning for Social Network Clustering, In Proceedings of the 17th International Conference on Web Information System Engineering (WISE'10), 2010.

SELECTED ACHIEVEMENTS AND AWARDS

AAAI Distinguished Paper Award, 2023
Zhejiang Provincial NSF Distinguished Young Scholar, 2021
Outstanding PC Award of WSDM, 2019
Outstanding Doctoral Dissertation Nomination Award of Chinese Institute of Electronics, 2016
Excellent Graduate of Tsinghua University with Ph.D. degree, 2016
Excellent Graduate of Beijing City with Ph.D. degree, 2016
National Scholarship of China, 2014-2015
ACM International Collegiate Programming Contest, Asia Regional, 5 gold medals, 2008-2009

ACADEMIC SERVICES

Associated Editor of Transactions on Big Data
Sponsor co-chair of WWW 2021
Proceeding chair of SMP 2020
Proceeding chair of BigNet workshop 2016
Session chair of KDD 2015
Program committee member of KDD, WWW, AAAI, CIKM, WSDM, etc.