Yingtong Dou (Ph.D. Candidate)

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Google Scholar
Github

Education			
	Ph.D.	University of Illinois at Chicago (UIC), Computer Science	2017 - *present*

Ph.D. University of Illinois at Chicago (UIC), Computer Science   2017 - *present*
Advisor: Philip S. Yu
Research Area: Graph Mining, Fraud Detection, Secure Machine Learning

B.E. Beijing Univ. of Posts and Telecoms. (BUPT), IoT Engineering 2013 - 2017
Graduated with *Beijing Excellent Graduate Award*
Thesis: *Robust Influence Maximization Algorithm Design for OSNs*

Working Experience

Research Intern   **Snap Inc.**   Summer 2021
Mentor: Dr. Neil Shah
Project: Incremental Learning with Graph Neural Networks

Research Intern   **Noah's Ark Lab**   Summer 2018
Mentor: Dr. Zhenhua Dong
Project: Download Fraud Detection in Mobile App Markets

Preprints

[P3] K. Liu, **Y. Dou**, Y. Zhao, X. Ding, X. Hu, R. Zhang, K. Ding, C. Chen, H. Peng, K. Shu, G. H. Chen, Z. Jia, and P. S. Yu. **"PyGOD: A Python Library for Graph Outlier Detection."** *arXiv preprint*, 2022. [arXiv:2204.12095]

[P2] L. Sun, **Y. Dou**, C. Yang, J. Wang, P. S. Yu, L. He and B. Li. **"Adversarial Attack and Defense on Graph Data: A Survey."** *Under Review*, 2020. [arXiv:1812.10528]

[P1] **Y. Dou**. **"A Review of Recent Advance in Online Spam Detection."** *Technical Reports*, 2019. [doi:10.13140/RG.2.2.34813.00485]

Selected Publications

[C7] **Y. Dou**, K. Shu, C. Xia, P. S. Yu and L. Sun. **"User Preference-aware Fake News Detection."** *ACM SIGIR*, 2021. [doi:10.1145/3404835.3462990]

[C4] **Y. Dou**, Z. Liu, L. Sun, Y. Den, H. Peng, and P. S. Yu. **"Enhancing Graph Neural Network-based Fraud Detectors against Camouflaged Fraudsters."** *ACM CIKM*, 2020. [doi:10.1145/3340531.3411903]

[C3] **Y. Dou**, G. Ma, P. S. Yu, and S. Xie. **"Robust Spammer Detection by Nash Reinforcement Learning."** *ACM SIGKDD*, 2020. [doi:10.1145/3394486.3403135]

[C1] **Y. Dou**, W. Li, Z. Liu, Z. Dong, J. Luo, and P. S. Yu. **"Uncovering Download Fraud Activities in Mobile App Markets."** *IEEE/ACM ASONAM*, 2019. [doi:10.1145/3341161.3345306]

Other Publications

[C9] C. Wang, **Y. Dou**, M. Chen, J. Chen, Z. Liu, and P. S. Yu. **"Deep Fraud Detection on Non-attributed Graph."** *IEEE BigData*, 2021. [arXiv:2110.01171]

[C8] J. Du, **Y. Dou**, C. Xia, L. Cui, J. Ma, and P. S. Yu. **"Cross-lingual COVID-19 Fake News Detection."** *IEEE ICDM Workshop*, 2021.[arXiv:2110.06495]

[J4] H. Peng, R. Zhang, **Y. Dou**, R. Yang, J. Zhang, P. S. Yu. **"Reinforced Neighborhood Selection Guided Multi-Relational Graph Neural Networks."** *ACM TOIS*, 2021. [doi:10.1145/3490181]

[C6] L. Yang, Z. Liu, **Y. Dou**, J. Ma and P. S. Yu. **"ConsisRec: Enhancing GNN for Social Recommendation via Consistent Neighbor Aggregation."** *ACM*

SIGIR, 2021. [doi:10.1145/3404835.3463028]

[J3] J. Li, H. Peng, Y. Cao, **Y. Dou**, H. Zhang, P. S. Yu, L. He. **"Higher-Order Attribute-Enhancing Heterogeneous Graph Neural Networks."** *IEEE Trans. on Knowledge and Data Engineering*, 2021. [doi:10.1109/TKDE.2021.3074654]

[C5] Y. Cao, H. Peng, J. Wu, **Y. Dou**, J. Li, and P. S. Yu. **"Knowledge-Preserving Incremental Social Event Detection via Heterogeneous GNNs."** *The Web Conference*, 2021. [doi:10.1145/3442381.3449834]

[C2] Z. Liu, **Y. Dou**, P. S. Yu, Y. Den, and H. Peng. **"Alleviating the Inconsistency Problem of Applying Graph Neural Network to Fraud Detection."** *ACM SIGIR*, 2020. [doi:10.1145/3397271.3401253]

[J2] X. Deng, Y. Yu, D. Guo and **Y. Dou**. **"Efficient CPS Model Based Online Opinion Governance Modeling and Evaluation for Emergency Accidents."** *Springer, GeoInformatica*, 2018. [doi:10.1007/s10707-018-0319-4]

[J1] X. Deng, **Y. Dou**, T. Lv, N. QVH. **"A Novel Centrality Cascading Based Edge Parameter Evaluation Method for Robust Influence Maximization."** *IEEE Access*, 2017. [doi:10.1109/access.2017.2764750]

Skills	• **Language:** Chinese (Proficient), English (Advanced), Spanish (Elementary)
	• **Programming:** Python, C, C#, Java, SQL, MATLAB, Shell, PyTorch, TensorFlow
Professional Services	• **Conference Organizer:** WWW'22 Whova Chair, WSDM'22 Whova Chair
	• **Journal Editor:** Frontiers in Computer Science
	• **Journal Reviewer:** ACM TKDD, IEEE TKDE, ACM TIST, ACM TOIS, IEEE TNNLS, Springer Multimedia Tools and Applications, Springer Information Processing and Management, Springer Social Network Analysis and Mining, Frontiers in Computer Science
	• **PC Member:** CIKM'22, CySoc@ICWSM'22, KDD'22, CONSTRAINT@ACL'22, SDM'22, WSDM'22, IJCAI'21,'22, ASONAM'21, AAAI'21, TrueFact@KDD'20
	• **External Reviewer:** ECML-PKDD'22, ACL'22, AAAI'22, KDD'21, WWW'21, WSDM'21, KDD'20, BigData'19, CIKM'19
Talks and Blogs	• **Mining Twitter for Social Event and Misinformation Detection.**
	CS 579 OSN Analysis, IIT, Chicago. [Slides PDF] *March 2022*
	• **GNN-based Fraud Detection: from Research to Application.**
	Datafun Summit, Remote. [Slides PDF] *October 2021*
	• **Robust Fraud Detection against Adversarial Fraudsters.**
	Grab Inc. and F5 Research, Remote. [Slides PDF] *March & May 2021*
	• **Tackling Fake Downloads in Mobile App Markets.**
	Blog Article, Medium. [Blog Link] *July 2019*
	• **An Introduction to Graph-based Spam Review Detection.**
	Tencent, Shenzhen. [Slides PDF] *July 2018*
Honors and Awards	• Papers with Code Contributor Award *March 2022*
	• ACM WSDM 2022 Outstanding Service Award *February 2022*
	• Student Travel Awards: WSDM'22, ICDM'21, SIGIR'20, SIGKDD'20, CIKM'20