

# Yingtong Dou (Ph.D. Candidate)

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<b>Education</b>	<b>Ph.D.</b>	University of Illinois at Chicago (UIC), Computer Science Advisor: Philip S. Yu Research Area: Graph Mining, Fraud Detection, Secure Machine Learning	2017 - <i>present</i>
	<b>B.E.</b>	Beijing Univ. of Posts and Telecoms. (BUPT), IoT Engineering Graduated with <i>Beijing Excellent Graduate Award</i> Thesis: <i>Robust Influence Maximization Algorithm Design for OSNs</i>	2013 - 2017
<b>Working Experience</b>	Research Intern	<b>Snap Inc.</b> Mentor: Dr. Neil Shah Project: Incremental Learning with Graph Neural Networks	Summer 2021
	Research Intern	<b>Noah's Ark Lab</b> Mentor: Dr. Zhenhua Dong Project: Download Fraud Detection in Mobile App Markets	Summer 2018
<b>Preprints</b>	[P3]	K. Liu, <b>Y. Dou</b> , 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. “ <b>PyGOD: A Python Library for Graph Outlier Detection.</b> ” <i>arXiv preprint</i> , 2022. [arXiv:2204.12095]	
	[P2]	L. Sun, <b>Y. Dou</b> , C. Yang, J. Wang, P. S. Yu, L. He and B. Li. “ <b>Adversarial Attack and Defense on Graph Data: A Survey.</b> ” <i>Under Review</i> , 2020. [arXiv:1812.10528]	
	[P1]	<b>Y. Dou</b> . “ <b>A Review of Recent Advance in Online Spam Detection.</b> ” <i>Technical Reports</i> , 2019. [doi:10.13140/RG.2.2.34813.00485]	
<b>Selected Publications</b>	[C7]	<b>Y. Dou</b> , K. Shu, C. Xia, P. S. Yu and L. Sun. “ <b>User Preference-aware Fake News Detection.</b> ” <i>ACM SIGIR</i> , 2021. [doi:10.1145/3404835.3462990]	
	[C4]	<b>Y. Dou</b> , Z. Liu, L. Sun, Y. Den, H. Peng, and P. S. Yu. “ <b>Enhancing Graph Neural Network-based Fraud Detectors against Camouflaged Fraudsters.</b> ” <i>ACM CIKM</i> , 2020. [doi:10.1145/3340531.3411903]	
	[C3]	<b>Y. Dou</b> , G. Ma, P. S. Yu, and S. Xie. “ <b>Robust Spammer Detection by Nash Reinforcement Learning.</b> ” <i>ACM SIGKDD</i> , 2020. [doi:10.1145/3394486.3403135]	
	[C1]	<b>Y. Dou</b> , W. Li, Z. Liu, Z. Dong, J. Luo, and P. S. Yu. “ <b>Uncovering Download Fraud Activities in Mobile App Markets.</b> ” <i>IEEE/ACM ASONAM</i> , 2019. [doi:10.1145/3341161.3345306]	
<b>Other Publications</b>	[C9]	C. Wang, <b>Y. Dou</b> , M. Chen, J. Chen, Z. Liu, and P. S. Yu. “ <b>Deep Fraud Detection on Non-attributed Graph.</b> ” <i>IEEE BigData</i> , 2021. [arXiv:2110.01171]	
	[C8]	J. Du, <b>Y. Dou</b> , C. Xia, L. Cui, J. Ma, and P. S. Yu. “ <b>Cross-lingual COVID-19 Fake News Detection.</b> ” <i>IEEE ICDM Workshop</i> , 2021.[arXiv:2110.06495]	
	[J4]	H. Peng, R. Zhang, <b>Y. Dou</b> , R. Yang, J. Zhang, P. S. Yu. “ <b>Reinforced Neighborhood Selection Guided Multi-Relational Graph Neural Networks.</b> ” <i>ACM TOIS</i> , 2021. [arXiv:2104.07886]	
	[C6]	L. Yang, Z. Liu, <b>Y. Dou</b> , J. Ma and P. S. Yu. “ <b>ConsisRec: Enhancing GNN for Social Recommendation via Consistent Neighbor Aggregation.</b> ” <i>ACM</i>	

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:** 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