

# Yingtong Dou (Ph.D.)

Phone: +1 (312) 785-5168

Email: ytongdou@gmail.com

Homepage: <https://ytongdou.com>

[LinkedIn](#)

[Github](#)

Employment	<b>Staff Research Scientist</b>	<b>Visa Inc.</b>	<b>Dec. 2022 - Now</b>
	Supervisor: Dr. Mahashweta Das		Foster City, CA
	<ul style="list-style-type: none"><li>• Implementing the payment foundation model</li><li>• Developing deep learning models for advanced authentication</li><li>• Research: deep learning for tabular data, anomaly detection, graph mining</li></ul>		
	<b>Research Assistant</b>	<b>University of Illinois Chicago</b>	<b>Jun. 2019 - May. 2022</b>
	Advisor: Dr. Philip S. Yu		Chicago, IL
	<ul style="list-style-type: none"><li>• Carried out research on graph-based fraud/anomaly/misinformation detection</li></ul>		
	<b>Research Intern</b>	<b>Snap Inc.</b>	<b>Jun. 2021 - Oct. 2021</b>
	Mentor: Dr. Neil Shah		Remote
	<ul style="list-style-type: none"><li>• Project: probing the robustness of graph neural network under concept drift</li></ul>		
	<b>Research Intern</b>	<b>Noah’s Ark Lab</b>	<b>May. 2018 - Aug. 2018</b>
	Mentor: Dr. Zhenhua Dong		Shenzhen, China
	<ul style="list-style-type: none"><li>• Project: download fraud detection in mobile App stores</li></ul>		
Education	<b>Ph.D.</b>	University of Illinois Chicago, Computer Science	2017 - 2022
		Dissertation: <i>Robust Graph Learning for Misbehavior Detection</i> [PDF]	
	<b>B.E.</b>	Beijing Univ. of Posts and Telecoms., IoT Engineering	2013 - 2017
		Graduated with <i>Beijing Excellent Graduate Award</i>	
	<b>B.E.</b>	Queen Mary University of London, IoT Engineering	2013 - 2017
		Graduated with <i>Second Class Honours (Upper Division)</i>	
Selected Publications	<b>As of 12/2023, #Citations=1,380; H-index=15. [Google Scholar]</b>		
	K. Liu*, Y. Dou*, Y. Zhao*, et al. “ <b>BOND: Benchmarking Unsupervised Outlier Node Detection on Static Attributed Graphs.</b> ” <i>NeurIPS</i> , 2022. [doi:arXiv:2206.10071]		
	Y. Dou, 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]		
	Y. Dou, 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]		
	Y. Dou, 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]		
	Y. Dou, 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]		
Preprints	K. Liu*, Y. Dou*, Y. Zhao*, et al. “ <b>PyGOD: A Python Library for Graph Outlier Detection.</b> ” <i>arXiv preprint</i> , 2022. [doi:arXiv:2204.12095]		

## Professional Services

- **Conference Organizer:** TheWebConf'22 Whova Chair, WSDM'22 Whova Chair
- **Session Chair:** CIKM'22, KDD'22
- **Journal Reviewer:** IEEE: TIFS, TKDE, TNNLS; ACM: TWEB, TKDD, TIST, TOIS; Springer: MTA, IPM, SNAM; Elsevier: KBS, OSNM, IAM, PR; Frontiers in: Computer Science, Psychology
- **Program Committee Member:** KDD, NeurIPS, SIGIR, IJCAI, TheWebConf, AAAI, ACL, CIKM, WSDM, ICWSM, ICDM, ECML-PKDD, SDM, LoG, ASONAM

## Talks and Blogs

- **GNN-based Fraud Detection: from Research to Application.**  
*Wells Fargo, Online. [Slides PDF]* December 2022
- **GNN-based Graph Outlier Detection: A Brief Introduction.**  
*Blog Article, TigerGraph. [Blog Link]* September 2022
- **GNN-based Anomaly Detection: from Research to Application.**  
*One Novartis Data Science Seminar, Online. [Slides PDF]* August 2022
- **GNNs for Financial Fraud Detection: Practices and Challenges.**  
*KDD'22 MLF Workshop, Washington DC. [Slides PDF]* August 2022
- **Mining Twitter for Social Event and Misinformation Detection.**  
*CS 579 OSN Analysis, IIT, Chicago. [Slides PDF]* March 2022
- **Robust Graph Learning for Misbehavior Detection.**  
*Ph.D. Forum, ACM WSDM 2022, Online. [Slides PDF]* February 2022
- **GNN-based Fraud Detection: from Research to Application.**  
*Datafun Summit, Online. [Slides PDF]* October 2021
- **Robust Fraud Detection against Adversarial Fraudsters.**  
*Grab Inc. and F5 Research, Online. [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

- ACM CIKM 2022 Best Paper Honorable Mention October 2022
- 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