# Yingtong Dou (Ph.D.)

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## **Employment**

### Staff Research Scientist Visa Inc.

Dec. 2022 - Now

Supervisor: Dr. Mahashweta Das

Foster City, CA

- Implementing the payment foundation model
- Developing deep learning models for advanced authentication
- Research: deep learning for tabular data, anomaly detection, graph mining

Research Assistant University of Illinois Chicago Jun. 2019 - May. 2022 Advisor: Dr. Philip S. Yu Chicago, IL

• Carried out research on graph-based fraud/anomaly/misinformation detection

## Research Intern Snap Inc.

Jun. 2021 - Oct. 2021

Mentor: Dr. Neil Shah

Remote

• Project: probing the robustness of graph neural network under concept drift

#### Research Intern Noah's Ark Lab

May. 2018 - Aug. 2018

Mentor: Dr. Zhenhua Dong

Shenzhen, China

• Project: download fraud detection in mobile App stores

#### Education

- **Ph.D.** University of Illinois Chicago, Computer Science 2017 2022 Dissertation: Robust Graph Learning for Misbehavior Detection [PDF]
- **B.E.** Beijing Univ. of Posts and Telecoms., IoT Engineering
  Graduated with Beijing Excellent Graduate Award
- **B.E.** Queen Mary University of London, IoT Engineering Graduated with Second Class Honours (Upper Division)

# Selected Publications

As of 06/2024, #Citations=1,800; H-index=16. [Google Scholar]

K. Liu\*, Y. Dou\*, Y. Zhao\*, et al. "BOND: Benchmarking Unsupervised Outlier Node Detection on Static Attributed Graphs." NeurIPS, 2022.

[doi:arXiv:2206.10071]

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]

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]

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]

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]

# Professional Services

- Conference Organizer: The Web Conf'22 Whova Chair, WSDM'22 Whova Chair
- Session Chair: CIKM'22, KDD'22

- Journal Reviewer: IEEE: TPAMI, TBD, 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