

# Dr. Xiao SHEN

Associate Professor, Hainan University

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## Research Interests

- ✧ Graph Neural Networks
  - ✧ Graph Contrastive Learning
  - ✧ Cross-network Classification
  - ✧ Graph Domain Adaptation
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## Academic Qualifications

*Jul. 2015 to Jan. 2019*

**The Hong Kong Polytechnic University**, Hong Kong

*Department of Computing*

✧ **Ph.D. in Computer Science**

➤ Thesis: “Feature Representation Learning in Complex Networks”

*Supervisor: Dr. Fu-lai Chung*

*Sep. 2012 to Jul. 2013*

**University of Cambridge**, United Kingdom

*Computer Laboratory, Faculty of Computer Science and Technology*

✧ **M.Phil. in Advanced Computer Science**

➤ *Dissertation: “Trust Relationships and Content Filtering”*

*Supervisor: Dr. Eiko Yoneki*

*Sep. 2008 to Jul. 2012*

**Queen Mary University of London**, United Kingdom

**& Beijing University of Posts and Telecommunications**, CHINA

*Department of Electronic Engineering and Computer Science*

✧ **B.Sc. (B.Eng) in e-Commerce Engineering with Law**

➤ First Class Honors

➤ *Dissertation: “Building a text-based dialogue system to give information about EECS”*

*Supervisor: Dr. Matthew Purver*

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## Working Experience

*Apr. 2021 to Now*

Associate Professor, School of Computer Science and Technology, Hainan University, Haikou, China

*Mar. 2019 to Feb. 2021*

Postdoctoral Fellow, Centre for Smart Health, The Hong Kong Polytechnic University, Hong Kong (Supervisor: Dr. Kup-Sze Choi)

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## Selected Publications

- [1] **Xiao Shen**, Shirui Pan, Kup-Sze Choi, Xi Zhou\*. Domain-adaptive Message Passing Graph Neural Network. *Neural Networks*, 2023.
- [2] **Xiao Shen**, Dewang sun, Shirui Pan, Xi Zhou, and Laurence T. Yang. Neighbor Contrastive Learning on Learnable Graph Augmentation. In *Proceedings of AAAI Conference on Artificial Intelligence (AAAI)*, 2023.
- [3] Quanyu Dai, Xiao-Ming Wu, Jiaren Xiao, **Xiao Shen\***, Dan Wang. Graph Transfer Learning via Adversarial Domain Adaptation with Graph Convolution. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, vol. 35, no. 5, pp. 4908-4922, 2023.
- [4] **Xiao Shen**, Quanyu Dai\*, Sitong Mao, Fu-lai Chung, and Kup-Sze Choi, Network Together: Node Classification via Cross-network Deep Network Embedding, *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, vol. 32, no. 5, pp. 1935-1948, 2021.
- [5] Quanyu Dai, **Xiao Shen**, Zimu Zheng, Liang Zhang, Qiang Li, and Dan Wang, Adversarial Training Regularization for Negative Sampling Based Network Embedding, *Information Sciences*, vol. 579, pp. 199-217, 2021.
- [6] **Xiao Shen**, Quanyu Dai, Fu-lai Chung, Wei Lu, and Kup-Sze Choi, Adversarial deep network embedding for cross-network node classification, *Proceedings of AAAI Conference on Artificial Intelligence (AAAI)*, 2020.04.
- [7] **Xiao Shen**, and Fu-Lai Chung\*, Deep Network Embedding for Graph Representation Learning in Signed Networks, *IEEE Transactions on Cybernetics (TCyb)*, vol. 50, no. 4, pp. 1556-1568, 2020.
- [8] **Xiao Shen**, Sitong Mao, and Fu-lai Chung\*, Cross-network Learning with Fuzzy Labels for Seed Selection and Graph Sparsification in Influence Maximization, *IEEE Transactions on Fuzzy Systems (TFS)*, vol. 28, no. 9, pp. 2195-2208, 2020.
- [9] Quanyu Dai, **Xiao Shen**, Liang Zhang, Qiang Li, Dan Wang, Adversarial Training Methods for Network Embedding, *Proceedings of the International Conference on World Wide Web (WWW)*, 2019.05.
- [10] Sitong Mao, **Xiao Shen**, Fu-lai Chung, Deep Domain Adaptation based on Multi-layer Joint Kernelized Distance, *Proceedings of International ACM SIGIR Conference on Research & Development in Information Retrieval (SIGIR)*, 2018.06.
- [11] **Xiao Shen**, Fu-lai Chung, and Sitong Mao, Leveraging Cross-network Information for Graph Sparsification in Influence Maximization, *Proceedings of International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, 2017.07.
- [12] **Xiao Shen**, and Fu-lai Chung, Deep Network Embedding with Aggregated Proximity Preserving, *Proceedings of the 2017 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)*, 2017.08.

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## Grants

Jan.2022 to Dec. 2024

**The Research on Key Technologies of Cross-network Representation Learning based on the Integration of Graph Neural Network and Domain Adaptation**, National Natural Science Foundation of China (No. 62102124), PI.

Apr. 2021 to Apr. 2026

**The Research on Key Technologies of Cross-Network Representation Learning for Graph Domain Adaptation**, the Research Start-up Fund of Hainan University (No. KYQD(ZR)-22016), PI.

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## **Awards**

<i>Dec. 2022</i>	<b>University-level Outstanding High-level Talents</b> , awarded by Hainan University.
<i>Dec. 2021</i>	<b>IEEE Outstanding Leadership Award</b> , awarded by 2021 IEEE Hyper-Intelligence Congress.
<i>Mar. 2019 to Feb. 2021</i>	<b>Postdoctoral Hub, The Hong Kong Technology Talent Scheme</b> , awarded by Innovation and Technology Commission, The Government of The Hong Kong SAR.
<i>Jul. 2015 to Jul. 2018</i>	<b>PolyU Scholarship for HK PhD Fellowship student</b> , awarded by The Hong Kong Polytechnic University.
<i>Jul. 2015 to Jul. 2018</i>	<b>COMP Scholarship for HK PhD Fellowship students</b> , awarded by the Department of Computing, The Hong Kong Polytechnic University.
<i>Jul. 2015 to Jul. 2018</i>	<b>The Hong Kong PhD Fellowship</b> , awarded by the Research Grants Council, The Government of The Hong Kong SAR.
<i>Sep.2011 to Jul. 2012</i>	<b>Excellent Academic Performance Scholarship</b> , awarded by Queen Mary University of London.

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## **Professional Services**

<i>Program Chair</i>	<ul style="list-style-type: none"><li>• The 7th IEEE International Conference on Data Science and Systems (IEEE DSS)</li></ul>
<i>Program Committee Member</i>	<ul style="list-style-type: none"><li>• SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2023</li><li>• AAAI Conference on Artificial Intelligence (AAAI), 2021-2023</li><li>• International Joint Conference on Artificial Intelligence (IJCAI), 2021-2023</li></ul>
<i>Journal Reviewer</i>	<ul style="list-style-type: none"><li>• IEEE Transactions on Neural Networks and Learning Systems (TNNLS)</li><li>• IEEE Transactions on Knowledge and Data Engineering (TKDE)</li><li>• ACM Transactions on Knowledge Discovery from Data (TKDD)</li><li>• IEEE Transactions on Emerging Topics in Computational Intelligence</li><li>• Information Science</li></ul>

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