

# Linchuan Xu

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## Education

### **The Hong Kong Polytechnic University (PolyU), Hong Kong**

Ph.D., Department of Computing, 2018

Thesis: Heterogeneous Information Fusion in Network Embedding for Data Mining Applications

### **Beijing University of Posts and Telecommunications (BUPT), Beijing, China**

B.Eng., Department of Information and Communication Engineering, 2013

Thesis: On Consistency of Replica under Context of Distributed File Systems

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## Research Interests

Computational Medicine, Network Embedding, Data Mining

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## Research Experience

### **The University of Tokyo, Tokyo, Japan**

Project Researcher, from Aug. 2018 to now

Supervisor: Prof. Kenji Yamanishi

Research Focus: Application of Deep Learning on Medicine (Glaucoma Progression Prediction)

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

Ph.D. student, from 2013 to July 2018

Supervisor: Prof. Jiannong Cao

Research Focus: Heterogeneous Information Fusion in Network Embedding for Data Mining Applications

### **University of Illinois at Chicago, Chicago, Illinois, USA**

Visiting student, from Sep. 2015 to July 2016

Supervisor: Prof. Philip S. Yu

Research Focus: Application of Data Mining on Networks

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## Awards

2018, PAKDD Student Travel Award

2017, DSAA Best Research Paper Award

2017, DSAA Student Travel Award

2017, WSDM Student Travel Award

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## Publications

Manuscript in Progress:

- [1.] **Linchuan Xu**, Jiannong Cao, Xiaokai Wei, Philip S. Yu, “Network Embedding via Coupled Kernelized Multi-dimensional Array Factorization”, IEEE Transactions on Knowledge and Data Engineering (Minor Revision).
- [2.] **Linchuan Xu**, Jing Wang, Lifang He, Jiannong Cao, Xiaokai Wei, Philip S. Yu, Kenji Yamanishi, “MiSep: A Framework for Embedding Heterogeneous Information Networks with Arbitrary Number of Node and Edge Types”, IEEE Transactions on Knowledge and Data Engineering (Under Review).

Conference Publications:

- [1.] Yuhui Zheng, **Linchuan Xu**, Taichi Kiwaki, Jing Wang, Hiroshi Murata, Ryo Asaoka, Kenji Yamanishi, “Glaucoma Progression Prediction Using Retinal Thickness via Latent Space Linear Regression”, to appear in KDD2019.
- [2.] Jing Wang, **Linchuan Xu**, Feng Tian, Atsushi Suzuki, Changqing Zhang, Kenji Yamanishi, “Attributed Subspace Clustering”, to appear in IJCAI2019.
- [3.] Jing Wang, Atsushi Suzuki, **Linchuan Xu**, Feng Tian, Liang Yang, Kenji Yamanishi, “Orderly Subspace Clustering”, to appear in AAAI2019.
- [4.] **Linchuan Xu**, Xiaokai Wei, Jiannong Cao, Philip S. Yu, “On Learning Community-specific Similarity Metrics for Cold-start Link Prediction”, IJCNN2018. July 8-13, Rio, Brazil.
- [5.] **Linchuan Xu**, Xiaokai Wei, Jiannong Cao, Philip S. Yu, “ICANE: Interaction Content Aware Network Embedding via Co-embedding of Nodes and Edges”, PAKDD2018. June 3-6, Melbourne, Australia.
- [6.] **Linchuan Xu**, Xiaokai Wei, Jiannong Cao, Philip S. Yu, “On Exploring Semantic Meanings of Links for Embedding Social Networks”, WWW 2018. April 23-27, Lyon, France. pp. 479-488.
- [7.] **Linchuan Xu**, Xiaokai Wei, Jiannong Cao, Philip S. Yu, “Multiple Social Role Embedding”, DSAA 2017. October 19-21, Tokyo, Japan. pp. 581-589.
- [8.] **Linchuan Xu**, Xiaokai Wei, Jiannong Cao, Philip S. Yu, “Multi-task Network Embedding”, DSAA 2017. October 19-21, Tokyo, Japan. pp. 571-580.
- [9.] **Linchuan Xu**, Xiaokai Wei, Jiannong Cao, Philip S. Yu, “Disentangled Link Prediction for Signed Networks via Disentangled Representation Learning” (*Best Research Paper*), DSAA 2017. October 19-21, Tokyo, Japan. pp. 676-685
- [10.] Xiaokai Wei, **Linchuan Xu**, Bokai Cao and Philip S. Yu, “Cross View Link Prediction by Learning Noise-resilient Representation Consensus”, WWW 2017. April 3-7, 2017. Perth, Australia. pp. 1611-1619.
- [11.] **Linchuan Xu**, Xiaokai Wei, Jiannong Cao, Philip S. Yu, “Embedding Identity and Interest for Social Networks” (*Poster*), WWW 2017. April 3-7, 2017. Perth, Australia. pp. 859-860.
- [12.] **Linchuan Xu**, Xiaokai Wei, Jiannong Cao, Philip S. Yu, “On Learning Mixed Community-specific Similarity Metrics for Cold-start Link Prediction” (*Poster*), WWW 2017. April 3-7, 2017. Perth, Australia. pp. 861-862.
- [13.] **Linchuan Xu**, Xiaokai Wei, Jiannong Cao, Philip S. Yu, “Embedding of Embedding (EOE): Joint Embedding for Coupled Heterogeneous Networks”, WSDM 2017. February 6-10, 2017. Cambridge, UK. pp. 741-749.

Journal Publications:

- [1.] **Linchuan Xu**, Xiaokai Wei, Jiannong Cao, Philip S. Yu, “Multi-task Network Embedding”, International Journal of Data Science and Analytics, 2018. pp. 1-16.
- [2.] **Linchuan Xu**, Xiaokai Wei, Jiannong Cao, Philip S. Yu, “ICANE: interaction content-aware network embedding via co-embedding of nodes and edges”, International Journal of Data Science and Analytics, 2018. pp. 1-14.