## 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

# Research Interests

Medical Data Analytics, Data Mining, Machine Learning

# Research Experience

## The University of Tokyo, Tokyo, Japan

Project Researcher, from Aug. 2018 to now

Supervisor: Prof. Kenji Yamanishi

Research Project: Application of Deep Learning on Disease Diagnosis (Glaucoma

Progression Prediction)

## The Hong Kong Polytechnic University, Hong Kong

Ph.D. student, from 2013 to July 2018

Supervisor: Prof. Jiannong Cao

Research Project: 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

#### Awards

2018, PAKDD Student Travel Award 2017, DSAA Best Research Paper Award 2017, DSAA Student Travel Award

2017, WSDM Student Travel Award

#### **Publications**

Manuscript under Review:

[1.] <u>Linchuan Xu</u>, Ryo Asaoka, Taichi Kiwaki, Hiroki Sugiura, Yohei Hashimoto, Shotaro Asano, Hiroshi Murata, Atsuya Miki, Kazuhiko Mori, Yoko Ikeda, Takashi Kanamoto, Junkichi Yamagami, Kenji Inoue, Masaki Tanito, Kenji Yamanishi, "Predicting the Glaucomatous Central 10 Degrees Visual Field from Optical Coherence Tomography using Deep Learning and Tensor Regression", submitted to Ophthalmology.

### Journal Publications:

- [1.] <u>Linchuan Xu</u>, Jing Wang, Lifang He, Jiannong Cao, Xiaokai Wei, Philip S. Yu, Kenji Yamanishi, "MixSp: A Framework for Embedding Heterogeneous Information Networks with Arbitrary Number of Node and Edge Types", to appear in IEEE Transactions on Knowledge and Data Engineering.
- [2.] <u>Linchuan Xu</u>, Jiannong Cao, Xiaokai Wei, Philip S. Yu, "Network Embedding via Coupled Kernelized Multi-dimensional Array Factorization", to appear in IEEE Transactions on Knowledge and Data Engineering.
- [3.] <u>Linchuan Xu</u>, Xiaokai Wei, Jiannong Cao, Philip S. Yu, "Multi-task Network Embedding", International Journal of Data Science and Analytics, 2018, 8(2), pp.183-198.
- [4.] <u>Linchuan Xu</u>, 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.

#### Conference Publications:

- [1.] Yuhui Zheng, <u>Linchuan Xu</u>, Taichi Kiwaki, Jing Wang, Hiroshi Murata, Ryo Asaoka, Kenji Yamanishi, "Glaucoma Progression Prediction Using Retinal Thickness via Latent Space Linear Regression", KDD 2019. August 3-7, 2019. Alaska, USA. pp. 2278-2286.
- [2.] Jing Wang, <u>Linchuan Xu</u>, Feng Tian, Atsushi Suzuki, Changqing Zhang, Kenji Yamanishi, "Attributed Subspace Clustering", IJCAI 2019. August 10-16, 2019. Macao, China. pp. 3719-3725.
- [3.] Jing Wang, Atsushi Suzuki, <u>Linchuan Xu</u>, Feng Tian, Liang Yang, Kenji Yamanishi, "Orderly Subspace Clustering", AAAI 2019. January 27 February 1, 2019. Hawaii, USA. pp. 5264-5272.
- [4.] <u>Linchuan Xu</u>, Xiaokai Wei, Jiannong Cao, Philip S. Yu, "On Learning Community-specific Similarity Metrics for Cold-start Link Prediction", IJCNN 2018. July 8-13, 2018. Rio, Brazil.
- [5.] <u>Linchuan Xu</u>, Xiaokai Wei, Jiannong Cao, Philip S. Yu, "ICANE: Interaction Content Aware Network Embedding via Co-embedding of Nodes and Edges", PAKDD2018. June 3-6, 2018. Melbourne, Australia.
- [6.] <u>Linchuan Xu</u>, Xiaokai Wei, Jiannong Cao, Philip S. Yu, "On Exploring Semantic Meanings of Links for Embedding Social Networks", WWW 2018. April 23-27, 2018. Lyon, France. pp. 479-488.
- [7.] <u>Linchuan Xu</u>, Xiaokai Wei, Jiannong Cao, Philip S. Yu, "Multiple Social Role Embedding", DSAA 2017. October 19-21, 2017. Tokyo, Japan. pp. 581-589.
- [8.] <u>Linchuan Xu</u>, Xiaokai Wei, Jiannong Cao, Philip S. Yu, "Multi-task Network Embedding", DSAA 2017. October 19-21, 2017. Tokyo, Japan. pp. 571-580.
- [9.] <u>Linchuan Xu</u>, 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, 2017. Tokyo, Japan. pp. 676-685
- [10.] Xiaokai Wei, <u>Linchuan Xu</u>, 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.] <u>Linchuan Xu</u>, 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.] <u>Linchuan Xu</u>, 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.] <u>Linchuan Xu</u>, 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.