

Yubao (Robert) Wu

Curriculum Vitae

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Research Interests

My research interests include big data analytics, data mining, and bioinformatics. I am particularly interested in tackling challenging problems in analyzing and mining large-scale networks and their applications in biomedical and social domains.

- Keywords
- Data Mining
 - Graph Mining
 - Bioinformatics
 - Random Walk on Graphs
 - Community Detection on Graphs
 - Densest Subgraph Detection

Employment History

2016.8 – present **Assistant Professor in Computer Science**, *Georgia State University, USA.*

Education

2012.1 – 2016.5 **Ph.D.**, *Case Western Reserve University, USA.*

2007.9 – 2009.12 **M.Eng.**, *Dalian University of Technology, China.*

2003.9 – 2007.6 **B.Eng.**, *Dalian University of Technology, China.*

Research Experience

2011.1 – 2011.12 **Visiting Research Scholar**, *The University of Southern Mississippi, USA.*

2010.11 – 2011.1 **Research Assistant**, *City University of Hong Kong, Hong Kong.*

2010.2 – 2010.10 **Research Assistant**, *The Chinese University of Hong Kong, Hong Kong.*

Honors & Awards

- 2015 Prof. Ram Kumar Foundation travel fellowship, VLDB'15
- 2015 Prof. Ram Kumar Foundation travel fellowship, ICDE'15
- 2014 Student travel award, SIGMOD'14
- 2014 – 2015 Choose Ohio First scholarship
- 2012 – 2016 Research assistantship, Case Western Reserve University
- 2008 Outstanding master student of the graduate school
- 2007 Outstanding graduate of the city of Dalian, China
- 2004, 2005, 2006 First-class scholarship of the university each year
- 2004, 2005, 2006 First-class "NOK", "Xiang Lu", national scholarships

Publications

1. **Yubao Wu**, Yuchen Bian, and Xiang Zhang. “Remember Where You Came From: On the Second-Order Random Walk Based Proximity Measures”, Proceedings of the International Conference on Very Large Data Bases (**VLDB**), 10(1):13-24, 2017.
2. **Yubao Wu**, Ruoming Jin, and Xiang Zhang. “Efficient and Exact Local Search for Random Walk Based Top-K Proximity Query in Large Graphs”, IEEE Transactions on Knowledge and Data Engineering (**TKDE**), 28(5): 1160-1174, 2016.
3. **Yubao Wu**, Xiaofeng Zhu, Li Li, Wei Fan, Ruoming Jin, and Xiang Zhang. “Mining Dual Networks: Models, Algorithms and Applications”, ACM Transactions on Knowledge Discovery from Data (**TKDD**), 10(4):40, 2016.
4. **Yubao Wu**, Ruoming Jin, Jing Li, and Xiang Zhang. “Robust Local Community Detection: On Free Rider Effect and Its Elimination”, Proceedings of the International Conference on Very Large Data Bases (**VLDB**), 8(7):798-809, 2015.
5. **Yubao Wu**, Ruoming Jin, Xiaofeng Zhu, and Xiang Zhang. “Finding Dense and Connected Subgraphs in Dual Networks”, Proceedings of the IEEE International Conference on Data Engineering (**ICDE**), 915-926, 2015.
6. **Yubao Wu**, Ruoming Jin, and Xiang Zhang. “Fast and Unified Local Search for Random Walk Based K-Nearest-Neighbor Query in Large Graphs”, Proceedings of the ACM SIGMOD International Conference on Management of Data (**SIGMOD**), 1139-1150, 2014.
7. **Yubao Wu**, Xiaofeng Zhu, Jian Chen, and Xiang Zhang. “EINVis: A Visualization Tool for Analyzing and Exploring Genetic Interactions in Large-Scale Association Studies”, **Genetic Epidemiology**, 37(7):675-685, 2013.
8. Wei Cheng, Xiang Zhang, Zhishan Guo, **Yubao Wu**, Patrick Sullivan, and Wei Wang. “Flexible and Robust Co-Regularized Multi-Domain Graph Clustering”, Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**SIGKDD**), 320-328, 2013.
9. Bin Sheng, Hanqiu Sun, **Yubao Wu**, and Daniel Thalmann. “Parallel Iso/Aniso-Scale Surface Texturing Guided in Gabor Space”, **SIGGRAPH Asia**, Technical Briefs, 2013.
10. Wei Cheng, Xiang Zhang, **Yubao Wu**, Xiaolin Yin, Jing Li, David Heckerman, and Wei Wang. “Inferring Novel Associations between SNP Sets and Gene Sets in eQTL Study Using Sparse Graphical Model”, Proceedings of the ACM Conference on Bioinformatics, Computational Biology and Biomedicine (**BCB**), 466-473, 2012.
11. Liming Xu, Jeremy Lyle, **Yubao Wu**, Zhigeng Pan, Mingmin Zhang, David H. Laidlaw, Robert L. Hester, and Jian Chen. “HumMod Explorer: A Multi-Scale Time-Varying Human Modeling Navigator”, **SIGGRAPH Asia**, Posters, 2011.
12. **Yubao Wu**, Xiangwei Kong, Xingang You, and Yiping Guo. “Printer Forensics Based on Page Document’s Geometric Distortion”, Proceedings of the IEEE International Conference on Image Processing (**ICIP**), 2909-2912, 2009.