

# Curriculum Vitae of Tianxing Wu

**Updated:** October, 18, 2019

**Birth year:** 1990

**Email:** wutianxing@ntu.edu.sg

## Research Interests

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Artificial Intelligence, Knowledge Graph, Semantic Web and Data Mining

## Education

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March, 2015 – September, 2018

**Ph.D. in Software Engineering**

Southeast University, China (Advisor: Prof. Dr. Guilin Qi)

September, 2012 – November, 2014

**Master of Engineering in Software Engineering**

Southeast University, China (Advisor: Prof. Dr. Guilin Qi)

September, 2008 – June, 2012

**Bachelor of Engineering in Computer Science and Technology (Software Class)**

Nanjing Tech University, China (GPA Ranking: 2/109)

## Professional Experience

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June, 2018 – now

**Postdoc Researcher**

*Research Associate (June, 2018 – September, 2018)*

*Research Fellow (October, 2018 – December, 2019)*

at the Research Group of “Data Management and Analytics”, School of Computer Science and Engineering, Nanyang Technological University, Singapore  
(work with Prof. Dr. Arijit Khan)

July, 2016 – September, 2016

**Visiting Researcher**

at the Research Group of “Web Science and Knowledge Management”, Institute AIFB, Karlsruhe Institute of Technology, Germany (work with Dr. Lei Zhang)

## Awards and Scholarships

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2017 **Chinese National Scholarship for PhD Students** (30,000 CNY)

the 2<sup>nd</sup> time during my PhD

- 2016 **Chinese National Scholarship for PhD Students** (30,000 CNY)  
3 out of about 70 CS PhD students in Southeast University each year
- 2016 **Excellent Master Degree Thesis of Jiangsu Province (China)**  
300 out of all the master degree theses (2014 – 2015) of 47 universities or institutes in Jiangsu Province (China)
- 2016 **Excellent Master Degree Thesis of Southeast University**  
52 out of 3,492 master degree theses (2014 – 2015) of Southeast University
- 2014 **Excellent Master Degree Graduate of Southeast University**  
10 out of about 150 CS master degree graduates in Southeast University (2014)
- 2010 **Chinese National Scholarship for Undergraduate Students** (8,000 CNY)  
3 out of about 1000 CS and EE undergraduates in Nanjing Tech University each year

### Funding

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- **The Grant of Research Innovation Program for College Graduates in Jiangsu Province (China)**  
PI, 24,000 CNY September, 2016 – September, 2017  
*Research on Cross-Lingual Taxonomy Matching Based on Bilingual Topic Models*

**Publications** (<https://scholar.google.com/citations?user=VE7OIakAAAAJ&hl=zh-CN>)

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### Book Chapter

**Tianxing Wu**, Guilin Qi, Cheng Li. Introduction to Chinese Knowledge Graphs and their Applications. The New Silk Road Leads through the Arab Peninsula: Mastering Global Business and Innovation. Emerald Publishing Limited, 2019: 153-167.

### Journal and Conference Papers:

#### 2020

**Tianxing Wu**, Haofen Wang, Cheng Li, Guilin Qi, Xing Niu, Meng Wang, Lin Li, Chaomin Shi. Knowledge graph construction from multiple online encyclopedias. *World Wide Web-Internet and Web Information Systems (WWWJ)*, 2020. (IF=1.77)

#### 2019

**Tianxing Wu**, Guilin Qi, Bin Luo, Lei Zhang, Haofen Wang. Language-Independent Type Inference of the Instances from Multilingual Wikipedia. *International Journal on Semantic Web and Information Systems (IJSWIS)*, 2019, 15(2): 22-46. (IF=1.833)

Bing Liu, Huan Gao, Guilin Qi, Shangfu Duan, **Tianxing Wu**, Meng Wang. Adversarial Discriminative Denoising for Distant Supervision Relation Extraction. In: *Proceedings of the 24th International Conference on Database Systems for Advanced Applications*

(*DASFAA*), Part III, 2019: 282-286. (Short Paper)

Yongpan Sheng, Meng Wang, **Tianxing Wu**, Han Xu. Adaptive Local Learning Regularized Nonnegative Matrix Factorization for Data Clustering. *Applied Intelligence*, 2019, 49(6): 2151-2168. (IF=2.882)

Bing Liu, Guilin Qi, Lu Pan, Shangfu Duan, **Tianxing Wu**. Incorporating Human Knowledge in Neural Relation Extraction with Reinforcement Learning. In: *Proceedings of International Joint Conference on Neural Networks (IJCNN)*, 2019. (Full Paper)

Mengyi Zhang, **Tianxing Wu**, Qiu Ji, Guilin Qi. Mining Hypernym-Hyponym Relations from Social Tags via Tag Embedding. In: *Proceedings of the 5th International Conference on Artificial Intelligence and Security (ICAIS)*, 2019: 319-328. (Short Paper)

## 2018

**Tianxing Wu**, Haofen Wang, Guilin Qi, Jiangang Zhu, Tong Ruan. On building and publishing Linked Open Schema from social Web sites. *Journal of Web Semantics (JWS)*, 2018, 51: 39-50. (IF=2.429)

**Tianxing Wu**, Guilin Qi, Cheng Li, Meng Wang. A Survey of Techniques for Constructing Chinese Knowledge Graphs and Their Applications. *Sustainability*, 2018, 10(9): 3245. (IF=2.592)

Kang Xu, Guilin Qi, Junheng Huang, **Tianxing Wu**, Xuefeng Fu. Detecting bursts in sentiment-aware topics from social media. *Knowledge-Based Systems (KBS)*, 2018, 21(2): 443-461. (IF=4.396)

Qiu Ji, Guilin Qi, Huan Gao, **Tianxing Wu**. Survey on Schema Induction from Knowledge Graphs. In: *Proceedings of the 3rd China Conference on Knowledge Graph and Semantic Computing (CCKS)*, 2018: 136-142. (Short Paper)

## 2017

**Tianxing Wu**, Lei Zhang, Guilin Qi, Xuan Cui, Kang Xu. Encoding Category Correlations into Bilingual Topic Modeling for Cross-Lingual Taxonomy Alignment. In: *Proceedings of the 16th International Semantic Web Conference (ISWC)*, Part I, 2017: 728-744. (Full Paper)

Kang Xu, Guilin Qi, Junheng Huang, **Tianxing Wu**. Incorporating Wikipedia concepts and categories as prior knowledge into topic models. *Intelligent Data Analysis (IDA)*, 2017, 21(2): 443-461. (IF=0.772)

**Tianxing Wu**, Du Zhang, Lei Zhang, Guilin Qi. Cross-Lingual Taxonomy Alignment with Bilingual Knowledge Graph Embeddings. In: *Proceedings of the 7th Joint International Semantic Technology Conference (JIST)*, 2017: 251-258. (Short Paper)

**Tianxing Wu**, Cong Gao, Guilin Qi, Lei Zhang, Chuanqi Dong, He Liu, Du Zhang. KG-Buddhism: The Chinese Knowledge Graph on Buddhism. In: *Proceedings of the 7th*

*Joint International Semantic Technology Conference (JIST)*, 2017: 259-267. (Short Paper)

Kang Xu, Feng Liu, **Tianxing Wu**, Sheng Bi, Guilin Qi. A Fast and Effective Framework for Lifelong Topic Model with Self-learning Knowledge. *In: Proceedings of the 16th China National Conference on Computational Linguistics (CCL)*, 2017: 147-158. (Full Paper)

Kang Xu, Junheng Huang, **Tianxing Wu**. A Sentiment and Topic Model with Timeslice, User and Hashtag for Posts on Social Media. *In: Proceedings of the 2nd China Conference on Knowledge Graph and Semantic Computing (CCKS)*, 2017: 59-65. (Short Paper)

## 2016

**Tianxing Wu**, Guilin Qi, Haofen Wang, Kang Xu, Xuan Cui. Cross-Lingual Taxonomy Alignment with Bilingual Biterm Topic Model. *In: Proceedings of the 30th AAAI Conference on Artificial Intelligence (AAAI)*, 2016: 287-293. (Full Paper)

Kang Xu, Guilin Qi, Junheng Huang, **Tianxing Wu**. A Joint Model for Sentiment-Aware Topic Detection on Social Media. *In: Proceedings of 22nd European Conference on Artificial Intelligence (ECAI)*, 2016: 238-346. (Full Paper)

**Tianxing Wu**, Shengjia Yan, Zhixin Piao, Liang Xu, Ruiming Wang, Guilin Qi. Entity Linking in Web Tables with Multiple Linked Knowledge Bases. *In: Proceedings of the 6th Joint International Semantic Technology Conference (JIST)*, 2016: 239-253. (Full Paper)

## 2014

Haofen Wang, **Tianxing Wu**, Guilin Qi, Ruan Tong. On Publishing Chinese Linked Open Schema. *In: Proceedings of the 13th International Semantic Web Conference (ISWC), International Semantic Web Conference, Part I*, 2014: 293-308. (Full Paper)

**Tianxing Wu**, Shaowei Ling, Guilin Qi, Haofen Wang. Mining Type Information from Chinese Online Encyclopedias. *In: Proceedings of the 4th Joint International Semantic Technology Conference (JIST)*, 2014: 213-229. (Full Paper)

**Tianxing Wu**, Guilin Qi, Haofen Wang. Zhishi.schema Explorer: A Platform for Exploring Chinese Linked Open Schema. *In: Proceedings of the 7th Chinese Semantic Web Symposium and 2nd Chinese Web Science Conference (CSWS)*, 2014: 174-181. (Demo Paper)

Yanfang Ma, Huan Gao, **Tianxing Wu**, Guilin Qi. Learning Disjointness Axioms With Association Rule Mining and Its Application to Inconsistency Detection of Linked Data. *In: Proceedings of the 7th Chinese Semantic Web Symposium and 2nd Chinese Web Science Conference (CSWS)*, 2014: 29-41. (Full Paper)

## Patents in China

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[1] A Machine Learning Based Approach for Matching Ontologies in Literature Domain, Inventors: **Tianxing Wu**, Guilin Qi, Bin Luo, Bin Lu, Application Number: 201410799922.3; (granted)

[2] A Machine Learning Based Approach for Constructing Social Network Ontologies, Inventors: **Tianxing Wu**, Cheng Li, Guilin Qi, Application Number: 201610115254.7; (granted)

[3] A Table Entity Linking Approach Based on Multiple Knowledge Bases, Inventors: **Tianxing Wu**, Guilin Qi, Taiyun Liu, Shenjia Yan, Zhixin Piao, Liang Xu, Ruiming Wang, Application Number: 201610920031.8; (granted)

[4] A Machine Learning Based Approach for Cross-Lingual Taxonomy Alignment, Inventors: Yishu Fang, Guilin Qi, **Tianxing Wu**, Bin Lu, Application Number: 201510105414.5; (granted)

[5] A Ontology Matching Method and System Based on Machine Learning, Inventors: Yuncheng Hua, Guilin Qi, **Tianxing Wu**, Huan Gao, Application Number: 201610595524.9; (under review)

[6] A Cross-Lingual Taxonomy Matching Method Based on Topic Model, Inventors: Xuan Cui, Guilin Qi, **Tianxing Wu**, Application Number: 201710441927.2; (under review)

[7] A Dynamic Knowledge Graph Updating Approach, Inventors: Guilin Qi, Cheng Li, Lin Li, **Tianxing Wu**, Application Number: 201810627957.7; (under review)

## **Service Activities**

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### **Conferences**

- 2020 **Program Committee Member** of ECAI,  
**External Reviewer** of VLDB,
- 2019 **External Reviewer** of VLDB, WWW, ISWC, DSAA
- 2018 **External Reviewer** of IJCAI, ICDM
- 2017 **External Reviewer** of AAAI, IJCAI
- 2016 **External Reviewer** of AAAI, IJCAI, WWW, ISWC, JIST
- 2015 **External Reviewer** of AAAI, WWW, ISWC, ESWC, JIST
- 2014 **External Reviewer** of ISWC, EKAW, CSWS

### **Journals**

**Editorial Review Board Member** of International Journal on Semantic Web and Information Systems (IJSWIS)

- 2019 **Reviewer** of Knowledge-based Systems (KBS), Concurrency and Computation: Practice and Experience (CCPE), International Journal of Cognitive Informatics and Natural Intelligence (IJCINI), Information;  
**External Reviewer** of Information Sciences (IS)
- 2018 **Reviewer** of Knowledge-based Systems (KBS), International Journal on Semantic Web and Information Systems (IJSWIS)  
**External Reviewer** of Journal of Web Semantics (JWS)
- 2017 **Reviewer** of International Journal on Semantic Web and Information Systems (IJSWIS)
- 2016 **External Reviewer** of Journal of Web Semantics (JWS)
- 2015 **External Reviewer** of Journal of Web Semantics (JWS)

### **Workshops**

- 2020 **Program Committee Member** of GRADES-NDA 2020, the 3rd Joint International Workshop on Graph Data Management Experiences & Systems and Network Data Analytics (co-located with SIGMOD 2020)
- 2019 **Program Committee Member** of GRADES-NDA 2019, the 2nd Joint International Workshop on Graph Data Management Experiences & Systems and Network Data Analytics (co-located with SIGMOD 2019)
- 2018 **Program Committee Member** of BigGraphs 2018, the 5th International Workshop on High Performance Big Graph Data Management, Analysis, and Mining (co-located with IEEE BigData 2018)