

# Chengyu WANG

## PERSONAL DATA

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## EDUCATION

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SEPT 2015-Now Ph.D. in Software Engineering (Data Science and Engineering)  
School of Computer Science and Software Engineering,  
**East China Normal University**  
Supervisors: Prof. **Xiaofeng He** and Prof. **Aoying Zhou**  
Overall GPA: 90.29/100 Major GPA: 90.44/100  
Won **National Scholarship for PhD Students** twice (2016, 2017)

SEPT 2011-JULY 2015 B.Eng. in Software Engineering  
Software Engineering Institute, **East China Normal University**  
Overall GPA: 3.77/4.0 Major GPA: 3.84/4.0  
Thesis: *Regional Traffic Pattern Mining Based on Latent Semantics*  
Won **National Scholarship** three times (2012, 2013, 2014) and  
**Shanghai Outstanding Graduate** (2015)

## RESEARCH TOPICS

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2014-Now **Knowledge extraction and understanding**  
Taxonomy learning: hypernymy relation extraction, taxonomy construction  
Relation extraction: short-text based relation extraction  
Language understanding: semantic language understanding, idiomaticity analysis  
Knowledge retrieval: entity linking, Web data summarization

2013-2014 **Location-based service**  
Distributed data processing: large-scale spatio-temporal data analysis  
Trajectory analysis: traffic trajectory analysis mining, traffic condition prediction  
Location-based recommender system: location recommendation

## PUBLICATIONS

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Submitted Manuscripts:

1. **Chengyu Wang**, Xiaofeng He, Aoying Zhou. *HEEL: Exploratory Entity Linking for Heterogeneous Information Networks*. submitted to **Knowledge and Information Systems**
2. **Chengyu Wang**, Xiaofeng He, Aoying Zhou. *SphereRE: Distinguishing Lexical Relations with Hyperspherical Relation Embeddings*. submitted to the 2019 Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL-HLT 2019**)

3. **Chengyu Wang**, Yan Fan, Xiaofeng He, Aoying Zhou. *A Family of Fuzzy Orthogonal Projection Models for Monolingual and Cross-lingual Hypernymy Prediction*. submitted to the Web Conference 2019 (**WebConf** 2019, formerly known as **WWW** 2019)
4. Yan Fan, **Chengyu Wang**, Boxing Chen, Zhongkai Hu, Xiaofeng He. *SPMM: A Soft Piece-wise Mapping Model for Bilingual Lexicon Induction*. submitted to the 19th SIAM International Conference on Data Mining (**SDM** 2019)

Refereed Journal Articles:

1. **Chengyu Wang**, Yan Fan, Xiaofeng He, Aoying Zhou. *Decoding Chinese User Generated Categories for Fine-grained Knowledge Harvesting*. IEEE Transactions on Knowledge and Data Engineering (**TKDE**) (in press)
2. **Chengyu Wang**, Yan Fan, Xiaofeng He, Aoying Zhou. *Predicting Hypernym-Hyponym Relations for Chinese Taxonomy Learning*. Knowledge and Information Systems (**KAIS**) (in press)
3. **Chengyu Wang**, Xiaofeng He, Aoying Zhou. *Event Phase Oriented News Summarization*. World Wide Web - Internet and Web Information Systems (**WWWJ**) 21(4): 1069-1092 (2018)
4. **Chengyu Wang**, Guomin Zhou, Xiaofeng He, Aoying Zhou. *NERank+: A Graph-based Approach for Entity Ranking in Document Collections*. Frontiers of Computer Science (**FCS**) 12(3): 504-517 (2018)
5. Jihong Yan, **Chengyu Wang**, Wenliang Cheng, Ming Gao, Aoying Zhou. *A Retrospective of Knowledge Graphs*. Frontiers of Computer Science (**FCS**) 12(1): 55-74 (2018)
6. Jihong Yan, Wenliang Cheng, **Chengyu Wang**, Jun Liu, Ming Gao, Aoying Zhou. *Optimizing Word Set Coverage for Multi-event Summarization*. Journal of Combinatorial Optimization (**JCO**) 30(4):996-1015 (2016)

Refereed Conference Papers:

1. **Chengyu Wang**, Xiaofeng He, Aoying Zhou. *Improving Hypernymy Prediction via Taxonomy Enhanced Adversarial Learning*. Proceedings of the 33rd AAAI Conference on Artificial Intelligence (**AAAI** 2019), accepted
2. **Chengyu Wang**, Yan Fan, Xiaofeng He, Aoying Zhou. *Learning Fine-grained Relations from Chinese User Generated Categories*. Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing (**EMNLP** 2017), pages 2577-2587
3. **Chengyu Wang**, Xiaofeng He, Aoying Zhou. *A Short Survey on Taxonomy Learning from Text Corpora: Issues, Resources and Recent Advances*. Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing (**EMNLP** 2017), pages 1190-1203
4. **Chengyu Wang**, Junchi Yan, Aoying Zhou, Xiaofeng He. *Transductive Non-linear Learning for Chinese Hypernym Prediction*. Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (**ACL** 2017), pages 1394-1404
5. **Chengyu Wang**, Xiaofeng He. *Chinese Hypernym-Hyponym Extraction from User Generated Categories*. Proceedings of the 26th International Conference on Computational Linguistics (**COLING** 2016), pages 1350-1361
6. **Chengyu Wang**, Rong Zhang, Xiaofeng He, Aoying Zhou. *Error Link Detection and Correction in Wikipedia*. Proceedings of the 25th ACM International Conference on Information and Knowledge Management (**CIKM** 2016), pages 307-316
7. **Chengyu Wang**, Rong Zhang, Xiaofeng He, Guomin Zhou, Aoying Zhou. *Event Phase Extraction and Summarization*. Proceedings of the 17th International Conference on Web Information Systems Engineering (**WISE** 2016), pages 473-488 (Best Paper Nominee)

8. **Chengyu Wang**, Rong Zhang, Xiaofeng He, Guomin Zhou, Aoying Zhou. *NERank: Bringing Order to Named Entities from Texts*. Proceedings of the 18th Asia Pacific Web Conference (**APWeb** 2016), pages 15-27 (Selected Oral Paper)
9. **Chengyu Wang**, Rong Zhang, Xiaofeng He, Aoying Zhou. *NERank: Ranking Named Entities in Document Collections*. Proceedings of the 25th World Wide Web Conference Companion (**WWW** 2016), pages 123-124 (Poster Track)
10. **Chengyu Wang**, Bing Xiao, Xiang Li, Jiawen Zhu, Xiaofeng He, Rong Zhang. *Predicting Users' Age Range in Micro-blog Network*. Proceedings of the 14th International Conference on Web Information Systems Engineering (**WISE** 2013), pages 516-521 (WISE 2013 Challenge Runner-up Award)
11. Yan Fan, **Chengyu Wang**, Xiaofeng He. *Exploratory Neural Relation Classification for Domain Knowledge Acquisition*. Proceedings of the 27th International Conference on Computational Linguistics (**COLING** 2018), pages 265-2276
12. Guohai Xu, **Chengyu Wang**, Xiaofeng He. *Improving Clinical Named Entity Recognition with Global Neural Attention*. Proceedings of the 2nd APWeb-WAIM Joint Conference on Web and Big Data (**APWeb-WAIM** 2018), pages 264-279
13. Lu Wang, **Chengyu Wang**, Keqiang Wang, Xiaofeng He. *BiUCB: A Contextual Bandit Algorithm for Cold-Start and Diversified Recommendation*. Proceedings of the 8th IEEE International Conference on Big Knowledge (**ICBK** 2017), pages 248-253
14. Ruolan Yong, **Chengyu Wang**, Xiaofeng He. *A Transfer Learning based Boosting Model for Emotion Analysis*. Proceedings of the 8th IEEE International Conference on Big Knowledge (**ICBK** 2017), pages 264-269
15. Jinyang Li, **Chengyu Wang**, Xiaofeng He, Rong Zhang, Ming Gao. *User Generated Content Oriented Chinese Taxonomy Construction*. Proceedings of the 17th Asia Pacific Web Conference (**APWeb** 2015), pages 623-634
16. Kun Wang, Guohai Xu, **Chengyu Wang**, Xiaofeng He. *A Hybrid Abnormal Advertising Traffic Detection Method*. Proceedings of the 8th IEEE International Conference on Big Knowledge (**ICBK** 2017), pages 236-241

Refereed Workshop Papers:

1. **Chengyu Wang**, Ming Gao, Xiaofeng He and Rong Zhang. *Challenges in Chinese Knowledge Graph Construction*. Proceedings of the 6th International Workshop on Data Engineering meets the Semantic Web (**DESWeb** 2015), pages 59-61, in conjunction with the 31st IEEE International Conference on Data Engineering (**ICDE** 2015)
2. Wenliang Cheng, **Chengyu Wang**, Bing Xiao, Weining Qian, Aoying Zhou. *On Statistical Characteristics of Real-life Knowledge Graphs*. Proceedings of the 6th International Workshop on Big data benchmarks, Performance, Optimization and Emerging hardware (**BPOE** 2015), pages 37-49, in conjunction with the 41st International Conference on Very Large Data Bases (**VLDB** 2015)
3. Fan Xia, Qunyan Zhang, **Chengyu Wang**, Weining Qian, Aoying Zhou. *On the Rise and Fall of Sina Weibo: Analysis Based on a Fixed User Group*. Proceedings of the 1st International Workshop on Scalable Social Event Processing and Management (**SSEPM** 2015), pages 224-231, in conjunction with the 31st IEEE International Conference on Data Engineering (**ICDE** 2015)
4. Yonghao Su, Chi Zhang, Jinyang Li, **Chengyu Wang**, Weining Qian, Aoying Zhou. *Cross-Lingual Entity Query from Large-Scale Knowledge Graphs*. Proceedings of the 2nd International Workshop on Web Data Mining and Applications (**WDMA** 2015), pages 139-150, in conjunction with the 17th Asia Pacific Web Conference (**APWeb** 2015)

Refereed Software Demonstrations:

1. Yan Fan, **Chengyu Wang**, Guomin Zhou, Xiaofeng He. *DKGBuilder: An Architecture for Building a Domain Knowledge Graph from Scratch*. Proceedings of the 22nd International Conference on Database Systems for Advanced Applications (**DASFAA** 2017), pages 663-667 (Demo Track)
2. Leyi Song, **Chengyu Wang**, Xiaoyi Duan, Bing Xiao, Xiao Liu, Rong Zhang, Xiaofeng He, Xueqing Gong. *TaxiHailer: A Situation-Specific Taxi Pick-Up Points Recommendation System*. Proceedings of the 19th International Conference on Database Systems for Advanced Applications (**DASFAA** 2014), pages 523-526 (Demo Track)
3. Chi Zhang, Yanhua Wang, **Chengyu Wang**, Wenliang Cheng, Xiaofeng He. *SNExtractor: A Prototype for Extracting Semantic Networks from Web Documents*. Proceedings of the 17th International Conference on Web-Age Information Management (**WAIM** 2016), pages 527-530 (Demo Track)

Papers in Chinese with English Abstract:

1. Jinyang Li, Yanhua Wang, Yan Fan, **Chengyu Wang**, Rong Zhang, Xiaofeng He. *Chinese Taxonomy Construction and Search System*. Journal of Computer Applications (**JCA**) 36(S1):207-209 (2016)

Thesis (in Chinese with English Abstract):

1. **Chengyu Wang**. *Regional Traffic Pattern Mining Based on Latent Semantics*. **Bachelor of Engineering Thesis** (Supervisor: Prof. Xiaofeng He)

## SKILLS AND QUALIFICATIONS

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PROGRAMMING	Java, Python, C++, SQL, $\text{\LaTeX}$
PLATFORMS & Tools	Hadoop, Keras, TensorFlow, Mahout, Lucene, Weka
QUALIFICATIONS	EMC Academic Associate, Cloud Infrastructure and Services EMC Academic Associate, Information Storage and Management

## LANGUAGE PROFICIENCY

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CHINESE	Mandarin (Native Speaker), Wu (Dialect)
ENGLISH	Good Command of Reading, Writing, Translation and Interpretation <b>Shanghai Advanced English Interpretation (DEC 2013)</b> CET-6: 636/710 CET-4: 663/710
JAPANESE	Intermediate Level with Basic Communication Skills New Japanese Language Proficiency Test (JLPT): N3 Level

## SELECTED AWARDS AND SCHOLARSHIPS

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OCT 2018	Microsoft Research Asia Fellowship Nominee
MAY 2018	Third Prize in National English Contest for College Students (Level A)
DEC 2017	<b>National Scholarship for PhD Students</b>
DEC 2016	Recipient, ECNU Outstanding Doctoral Dissertation Cultivation Plan of Action
DEC 2016	<b>National Scholarship for PhD Students</b>
DEC 2016	COLING 2016 Student Support Program
NOV 2016	WISE 2016 Best Paper Nominee
OCT 2016	SIGIR Student Travel Grant (CIKM 2016)
APRIL 2016	Google Student Travel Grant (WWW 2016)
DEC 2015	ECNU Graduate Freshman Scholarship
MAY 2015	<b>Shanghai Outstanding Graduate</b>
DEC 2014	<b>National Scholarship</b>
JUNE 2014	Special Prize in Mathematical Modeling Contest for College Students
MAY 2014	Special Prize in National English Contest for College Students (Level C) (Top 0.1% among all participants)
DEC 2013	<b>National Scholarship</b>
DEC 2013	Second Prize in First National Big Data Technology Innovation Contest (Among 3 teams that won the Second Prize out of 660 teams worldwide)
DEC 2012	<b>National Scholarship</b>
OCT 2013	WISE 2013 Challenge Runner-up Award (Ranked 2 out of 12 submissions)

## ACADEMIC ACTIVITIES

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### Conference Presentation:

2016	WWW 2016 (Montréal, Canada), CIKM 2016 (Indianapolis, USA), COLING 2016 (Osaka, Japan), APWeb 2016 (Suzhou, China), WISE 2016 (Shanghai, China)
2015	DESWeb@ICDE 2015 (Seoul, South Korea)
2013	WISE 2013 (Nanjing, China)

### Teaching Experience:

2016	TA, Database Systems and Applications (Spring Semester)
2015	TA, Web System Development (Autumn Semester)

### Secondary Conference Review:

2018	COLING 2018, COLING 2018 Mentoring Program, KDD 2018, ICDM 2018, ICBK 2018
2017	ICDM 2017, CIKM 2017, KDD 2017
2016	APWeb 2016
2015	NDBC 2015

### Journal Review:

2018	IEEE Access
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## REFERENCES

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- Aoying Zhou, Professor  
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