

CHENGYU WANG

chywang2013@gmail.com \diamond <https://chywang.github.io/>
Room 105 (West), Mathematics Building, 3663 North Zhongshan Road,
East China Normal University, Shanghai, 200062, China

EDUCATION

Ph.D. in Software Engineering

Sept. 2015 – June 2020

School of Software Engineering, **East China Normal University** (ECNU)

Supervisor: Prof. **Xiaofeng He** Overall GPA: 90.29/100, Major GPA: 90.44/100

Ph.D. Thesis: Algorithmic Studies on Relation Extraction from Chinese Short Texts

Research interests: taxonomy induction, knowledge extraction, knowledge graphs, lexical semantics, natural language understanding, etc.

Won **National Scholarship for PhD Students** three times (2016, 2017, 2019)

B.Eng. in Software Engineering

Sept. 2011 – June 2015

Software Engineering Institute, **East China Normal University** (ECNU)

Supervisor: Prof. **Xiaofeng He** Overall GPA: 3.77/4.0, Major GPA: 3.84/4.0

Bachelor Thesis: Regional Traffic Pattern Mining Based on Latent Semantics

Won **National Scholarship** three times (2012, 2013, 2014) and the honor of **Shanghai Outstanding Graduate** (2015)

PUBLICATIONS

Journal Articles:

1. **Chengyu Wang**, Xiaofeng He, Aoying Zhou. *Open Relation Extraction for Chinese Noun Phrases*. IEEE Transactions on Knowledge and Data Engineering (**TKDE**) (in press)
2. **Chengyu Wang**, Xiaofeng He, Aoying Zhou. *HEEL: Exploratory Entity Linking for Heterogeneous Information Networks*. Knowledge and Information Systems (**KAIS**) (in press)
3. **Chengyu Wang**, Yan Fan, Xiaofeng He, Hongyuan Zha, Aoying Zhou. *Idiomatcity Prediction of Chinese Noun Compounds and Its Applications*. IEEE Access (**IEEE ACCESS**) 7: 142866–142878 (2019)
4. **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**) 31(8): 1491–1505 (2019)
5. **Chengyu Wang**, Yan Fan, Xiaofeng He, Aoying Zhou. *Predicting Hypernym-Hyponym Relations for Chinese Taxonomy Learning*. Knowledge and Information Systems (**KAIS**) 58(3): 585–610 (2019)
6. **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)
7. **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)
8. 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)
9. 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)

Conference Papers:

1. **Chengyu Wang**, Xiaofeng He, Aoying Zhou. *SphereRE: Distinguishing Lexical Relations with Hyperspherical Relation Embeddings*. Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics (**ACL** 2019), pages 1727–1737
2. **Chengyu Wang**, Yan Fan, Xiaofeng He, Aoying Zhou. *A Family of Fuzzy Orthogonal Projection Models for Monolingual and Cross-lingual Hypernymy Prediction*. Proceedings of the 2019 World Wide Web Conference (**WWW** 2019), pages 1965–1976
3. **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), pages 7128–7135
4. **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
5. **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
6. **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
7. **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
8. **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
9. **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)
10. **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
11. **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
12. **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)
13. Yan Fan, **Chengyu Wang**, Boxing Chen, Zhongkai Hu, Xiaofeng He. *SPMM: A Soft Piecewise Mapping Model for Bilingual Lexicon Induction*. Proceedings of the 19th SIAM International Conference on Data Mining (**SDM** 2019), pages 244–252
14. 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

15. 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
16. 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
17. 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
18. 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
19. 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

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 **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 **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 **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 **APWeb** 2015

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
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
3. Chi Zhang, Yanhua Wang, **Chengyu Wang**, Wenliang Cheng, Xiaofeng He. *SNEExtractor: 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

Papers in Chinese with English Abstract:

1. **Chengyu Wang**, Xiaofeng He, Xuegong Gong, Aoying Zhou. *Word Embedding Projection Models for Hypernymy Relation Prediction*. Chinese Journal of Computers (**CJC**) (accepted)
2. 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)

SKILLS AND ABILITIES

Technical Skills:

Programming	Java, Python, SQL, L ^A T _E X
Platforms & Tools	Hadoop, Keras, TensorFlow, Lucene, Weka
Qualifications	EMC Academic Associate, Cloud Infrastructure and Services EMC Academic Associate, Information Storage and Management

Foreign Language Proficiency:

English	Good Command of Reading, Writing, Translation and Interpretation Shanghai Advanced English Interpretation (Dec. 2013) CET-6: 636/710 CET-4: 663/710
Japanese	Intermediate Level with Basic Communication Skills New Japanese Language Proficiency Test (JLPT): N3 Level (July 2013)

SELECTED AWARDS AND SCHOLARSHIPS

Scholarships:

Dec. 2019	National Scholarship for PhD Students
Dec. 2018	Student Science and Technology Excellence Scholarship (Top-1 in School of Computer Science and Software Engineering, ECNU)
Dec. 2017	National Scholarship for PhD Students
Dec. 2016	National Scholarship for PhD Students
Dec. 2015	ECNU Graduate Freshman Scholarship
Dec. 2014	National Scholarship
Dec. 2013	National Scholarship
Dec. 2012	National Scholarship

Honors and Grants:

July 2019	ACL 2019 Student Volunteer Program
Jan. 2019	AAAI 2019 Student Volunteer and Scholarship Program
Oct. 2018	Microsoft Research Asia Fellowship Nominee (Top 20 out of all Ph.D. candidate applicants in Asia-Pacific regions)
Dec. 2016	Recipient, ECNU Outstanding Doctoral Dissertation Cultivation Plan of Action (Only 2 among all Ph.D. candidates in School of Computer Science and Software Engineering, ECNU)
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)
May 2015	Shanghai Outstanding Graduate

Competition Awards:

May 2018 Third Prize in National English Contest for College Students (Level A)
 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 **Second Prize in First National Big Data Technology Innovation Contest**
 (Among 3 teams that won the Second Prize out of 660 teams worldwide)
 Oct. 2013 WISE 2013 Challenge Runner-up Award
 May 2013 Second Prize in National English Contest for College Students (Level C)
 May 2012 Third Prize in National English Contest for College Students (Level C)

ACADEMIC ACTIVITIES

Conference Presentation:

2019 AAAI 2019 (Honolulu, USA), WWW 2019 (San Francisco, USA), ACL 2019 (Florence, Italy)
 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)

Academic Services:

Conference PC Member ACL 2019 (Word-level Semantics Track)
 Conference Review NDBC 2015, APWeb 2016, KDD 2017, CIKM 2017, ICDM 2017,
 (Secondary) COLING 2018 (Mentoring Program), COLING 2018, KDD 2018,
 ICDM 2018, ICBK 2018, KDD 2019, ICDM 2019
 Journal Review IEEE Access (2018, 2019), TALLIP (2019)
 Conference Volunteer AAAI 2019 (Honolulu, USA), ACL 2019 (Florence, Italy)

Teaching Experience:

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

REFERENCES

- Xiaofeng He, Professor
 E-mail: xfhe@sei.ecnu.edu.cn
 School of Computer Science and Technology, East China Normal University
- Aoying Zhou, Professor
 E-mail: ayzhou@dase.ecnu.edu.cn
 Vice President, East China Normal University

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