

Medical Records Retrieval System **2012.9 ~ 2014.6**

- Task: Identify patients matching a set of clinical criteria based on their medical records.
- Challenges: Correctly identify and match the clinical terms for the disease, negation handling in the natural language.
- Solutions: Convert term based representation to concept based representation and then apply two weighting regularization methods to overcome the inaccurate mapping generated by the NLP tool.
- Achievements: The initial system ranked 6th place out of 88 submitted systems in TREC Medical Record Retrieval Track 2012. The improved system later achieved similar performance as state-of-the-art methods in TREC 2012 using less external resources and achieving a faster processing time.

Microblog Retrieval **2013.3 ~ 2013.12**

- Task: Build a real-time ad-hoc retrieval system for tweets collection.
- Challenges: Given tweets are shorter than normal documents, traditional retrieval signals may not work well. In addition, no future information is allowed in the system due to nature of time sensitivity of tweets.
- Solutions: Extend the frame work of tie-breaking with query expansion and document expansion techniques.
- Achievements: Top 3 ranked system based on the TREC Microblog Track 2012.

Software Requirement Specification Disambiguation **2011.10 ~ 2012.8**

- Task: Identify potentially ambiguous concepts in software requirement specifications.
- Challenges: Concepts may not have a clear definition and the total number of ambiguous concepts is different from project to project.
- Solutions: Developed an algorithm to determine ambiguity and utilized it in two feature-based information retrieval techniques to rank all important concepts based on these scores.
- Achievements: One of the first papers that detects ambiguous terminology from software requirement specifications. Experiment results over four real-world data sets show that the proposed methods are effective.

**WORKING
EXPERIENCE**

Research Assistant **2011.9 ~ Present**
Advisor: Dr. Hui Fang, Department of Electrical and Computer Engineering, University of Delaware.

Teaching Assistant **2012.9 ~ 2014.5**
Gave lectures and held office hours for three courses: *Search and Data Mining*, *Introduction to Computer Systems Engineering* and *Computer Systems Design*

Software QA Engineer **2008.6 ~ 2008.8**
Beijing EMN Information & Technology Corporation, Beijing, China

AWARDS

ACL Student Travel Award, ACL, 2014
Association for Computational Linguistics (ACL) provides funding for a limited number of students participating in the conference held by ACL.

University Dissertation Fellow Award, University of Delaware, 2015
The Dissertation Fellow award is established by the Office of the Provost to enable and support Ph.D. students to devote full attention to the completion of their doctoral dissertation.

PUBLICATIONS

Yue Wang and Hui Fang. Combining Term-based and Concept-based Representation for Clinical Retrieval. In Proceedings of the 2017 Text REtrieval Conference, 2017.

- Yue Wang** and Hui Fang. Evaluating Axiomatic Retrieval Models in the Core Track. In Proceedings of the 2017 Text REtrieval Conference, 2017.
- Yue Wang**, Hongning Wang, and Hui Fang. Extracting User-Reported Mobile Application Defects from Online Reviews. In Proceedings of 2017 SENTIRE Workshop of IEEE 17th International Conference on Data Mining, 2017.
- Yue Wang**, Kuang Lu, and Hui Fang. Learning2extract for Medical Domain Retrieval. In Proceedings of the 2017 Asia Information Retrieval Societies, 2017
- Yue Wang** and Hui Fang. Extracting Useful Information from Clinical Notes. In Proceedings of the 2016 Text REtrieval Conference, 2016.
- Yue Wang**, Xitong Liu and Hui Fang. A Study of Concept-based Weighting Regularization for Medical Records Search. In Proceeding of the 52nd Annual Meeting of the Association for Computational Linguistics, 2014.
- Yue Wang**, Hao Wu and Hui Fang. An Exploration of Tie-Breaking for Microblog Retrieval. In Proceedings of the 36th European Conference on Information Retrieval, 2014.
- Yue Wang** and Hui Fang. Exploring the Query Expansion Methods for Concept Based Representation. In Proceedings of the 2014 Text REtrieval Conference, 2014.
- Yue Wang**, Irene Manotas, Kristina Winbladh and Hui Fang. Automatic Detection of Ambiguous Terminology for Software Requirements. In Proceedings of the 18th International Conference on Application of Natural Language to Information Systems, 2013.
- Yue Wang**, Jerry Darko and Hui Fang. Tie-breaker: A New Perspective of Ranking and Evaluation for Microblog Retrieval. In Proceedings of the 2013 Text REtrieval Conference, 2013.
- Miguel A. Callejas P, **Yue Wang** and Hui Fang. Exploiting Domain Thesaurus for Medical Record Retrieval. In Proceedings of the 2012 Text REtrieval Conference, 2012.