Zhongyu WEI

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RESEARCH INTERESTS

Cross-media summarization, social media analysis, microblog search, natural language processing

EDUCATION

The Chinese University of Hong Kong (CUHK), Hong Kong, China

Ph.D. Candidate, Department of Systems Engineering and Engineering Management (SEEM), (August 2010 - Now)

- Adviser: Professor Kam-Fai Wong
- Area of Study: Social Computing, Information Retrieval, Natural Language Processing
- Estimated Graduation Time: August 2014

Harbin Institute of Technology (HIT), Harbin, China

M.Eng., Intelligence Computing Research Centre, (August 2008 - July 2010)

B.Eng., Department of Computer Science and Technology, (August 2004 - July 2008)

SELECTED PUBLICATIONS

- 1. **Zhongyu Wei**, Wei Gao, *Utilizing Microblogs for Automatic News Highlights Extraction*, The 25th International Conference on Computational Linguistics (COLING), Dublin, Ireland, August, 2014, Accepted.
- 2. **Zhongyu Wei**, Wei Gao, Ranking Model Selection and Fusion for Effective Microblog Search, SIGIR 2014 Workshop on Social Media Retrieval and Analysis(SoMeRA), Accepted.
- 3. Tarek El-Ganainy, **Zhongyu Wei**, Walid Magdy, and Wei Gao, *QCRI at TREC 2013 Microblog Track*, TREC2013 (2nd place among 65 automatic runs).
- 4. **Zhongyu Wei**, Junwen Chen, Wei Gao, Binyang Li, Lanjun Zhou, Yulan He and Kam-Fai Wong, *An Empirical Study on Uncertainty Identification in Social Media Context*, The 51st Annual Meeting of the Association for Computational Linguistics (ACL), Sofia, Bulgaria, August, 2013.
- 5. **Zhongyu Wei**, Yulan He, Wei Gao, Lanjun Zhou, Binyang Li and Kam-Fai Wong, *Mainstream Media Behavior Analysis on Twitter: A Case Study on UK General Election*, The 24th ACM Conference on Hypertext and Social Media (HyperText), Paris, France, May, 2013.
- 6. Zhongyu Wei, Yulan He, Simon Buckingham Shum, Rebecca Ferguson, Wei Gao and Kam-Fai Wong, A Self-Training Framework for Automatic Identification of Exploratory Dialogue, The 14th International Conference on Intelligent Text Processing and Computational Linguistics (CICLing), Samos, Greece, March, 2013.
- 7. Rebecca Ferguson, **Zhongyu Wei**, Yulan He, Simon Buckingham Shum, An Evaluation of Learning Analytics To Identify Exploratory Dialogue in Online Discussions, The 3rd ACM International Conference on Learning Analytics and Knowledge (LAK), Leuven, Belgium, April, 2013.
- 8. Wei Gao, **Zhongyu Wei** and Kam-Fai Wong, *Microblog Search and Filtering with Time Sensitive Feedback and Thresholding Based on BM25*, TREC2012 (Microblog track).

- 9. **Zhongyu Wei**, Wei Gao, Lanjun Zhou, Binyang Li, and Kam-Fai Wong, *Exploring Tweets Normalization and Query Time Sensitivity for Twitter Search*, TREC2011 (Microblog track).
- Lanjun Zhou, Binyang Li, Wei Gao, Zhongyu Wei and Kam-Fai Wong, Unsupervised Discovery of Discourse Relations for Eliminating Intra-sentence Polarity Ambiguities, The Conference on Empirical Methods in Natural Language Processing (EMNLP), July, 2011.
- 11. **Zhongyu Wei**, Jun Xu, Xiaolong Wang. *One-class Classification based Finance News Story Recommendation*, Journal of Computational Information Systems, 2009, 5(6): 1625-1631.

Working Papers

1. Producing News Highlights without Supervision: Let Tweeeeeets Help, under review

Professional Experience

Research Intern, Qatar Computing Research Institute (QCRI), Qatar, (June 2013 - December 2013)

• Mentor: Dr. Wei Gao

• Project: Utilizing Microblogs for Automatic News Highlights Extraction

Research Intern, Knowledge Media Institute (KMi), The Open University, UK, (April 2012 - June 2012)

• Mentor: Dr. Yulan He and Prof. Simon Buckingham Shum

• Project: Exploratory Discourse Detection

Conference Review

Secondary reviewer during the PhD study

2014: SigIR, COLING

2013: ACL, EMNLP, IJCAI, RANLP, AIRS

2012: ACL, EMNLP, PACLIC, AIRS

Project Experience

Utilizing Microblogs for Automatic News Highlights Extraction

Researcher, June 2013 - December 2013, Arabic Language Technologies, Qatar Computing Research Institute, Qatar

This project aims to generate sentences highlights for readers to quickly access the gist of a given news article. We propose a novel method to improve news highlights extraction by using microblogs. Given a news article, we formulate the problem as two rank-then-extract tasks: (1) Use indicative tweets to help extract news sentences as highlights; (2) extract top ranked tweets as highlights. Experimental result based on constructed corpus proves its effectiveness.

Emergent Rumor Detection and Credibility Ranking

Researcher, September 2012 - December 2014, Web Intelligence System Engineering Center, CUHK, Hong Kong

This project aims to identify rumor from social media and rank rumors in terms of harmfulness. We propose a novel learning to rank framework to spot rumor event from three aspects: (1) text uncertainty, (2) opinion controversy, (3) opinion based credibility. We will deliver an emergent rumor detection system based on the framework.

Web Information Mining and Decision Support Platform for the Modern Service Industry

 $\label{localization} Project\ coordinator,\ September\ 2010\ -\ August\ 2012,\ Web\ Intelligence\ System\ Engineering\ Center,\ CUHK,\ Hong\ Kong$

This project (MODEST) aims to provide enterprises with the services of retrieving news from websites, extracting commercial information, exploring customers opinions, and analyzing collaborative/competitive social networks. In this way, enterprises can improve the competitive abilities and facilitate potential collaboration activities. Currently, MODEST is applied to the pillar industries of Hong Kong, including innovative finance, modem logistics, information technology, etc. [DEMO(in Chinese)]

Exploratory Discourse Detection

Researcher, April 2012 - June 2012, KMi, The Open University, United Kingdom

This project aims to identify exploratory dialogues from online learning material. Exploratory dialogue is desirable in online learning environments, since training learners to use it has been shown to improve learning outcomes. We propose a self-training framework to identify exploratory dialogue and apply it to Social Learn Platform to assist distance education.

Financial News Ranking Module in an Intelligence Information Search Engine

 $Researcher,\ May\ 2009\ \hbox{--}\ July\ 2010,\ Intelligence\ Computing\ Research\ Center,\ HIT,\ China$

This project aims to rank the financial news according to its importance to users based on individual stock. We propose several novel features from financial news and combine all of them by learning to rank model for financial news ranking. The developed ranking model has been adopted in the intelligence information search engine effectively.

Professional Skills

General: Fast modeling and prototyping; Data analysis; Familiar with Twitter data processing

Programming: Java, Python, Unix/Linux shell scripting, R, C/C++

TEACHING EXPERIENCE

Teaching Asistant

Engineering Entrepreneurship, SEEM, CUHK, 2011, 2012, 2013, 2014 Information Systems Analysis and Design, SEEM, CUHK, 2012 Information Technology Management, SEEM, CUHK, 2012, 2013 Information Systems Management, SEEM, CUHK, 2011

Awards

| July 2010 | Outstanding Graduates in Province (top 3%) |
|----------------|---|
| July 2010 | Outstanding Postgraduate Students in HIT (top 1%) |
| July 2008 | Outstanding Graduates in Province (top 3%) |
| September 2006 | Outstanding Student Leaders in Province (top 1%) |

Referees

Professor Kam-Fai WONG Dr. Wei GAO

PhD, Professor PhD, Scientist

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Dr. Yulan HE Professor Xiaolong WANG

PhD, Senior lecturer PhD, Professor

Aston University Harbin Institute of Technology Email: y.he9@aston.ac.uk Email: wangxl@insun.hit.edu.cn