

## **Min Song, Ph.D.**

**Underwood Distinguished Professor**

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### **RESEARCH INTERESTS**

Text Mining, Biomedical Literature Mining, Social Media Mining, Entitymetrics, Knowledge Graph, Big Data

### **EDUCATION**

PhD, College of Information Science & Technology, Drexel University, Philadelphia, PA, Spring 2005
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Dissertation Title: Robust Knowledge Extraction over Large Text Collections
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M.S., School of Library and Information Science, Indiana University, Bloomington, Indiana, Spring 1996
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B.A., School of Library and Information Science, Yonsei University, Seoul, Korea, Spring 1992
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### **HONORS AND AWARDS**

**2016 Best Research Award at Yonsei**

**2015 Best Research Award at Yonsei**

**2014 Best Research Award at Yonsei**

**2013 Best Paper Award at EDB 13**

**2012 Excellence in Teaching Award at Yonsei**

**2011 Outstanding Service Award by ER 2011**

**2010 NJLA CUS Technology Innovation Award Nominee**

**2009 NJIT Teaching Award Nominee by IS**

2009 **Outstanding Service Award by CIKM**

2008 **NYAS Blavatnik Award Nominee** by NJIT

2008 **Microsoft Research New Faculty Nominee** by NJIT

2005 **Beta Phi Mu Minority Doctoral Student Scholarship Award**

2005 **Poster Competition Honorable Mention Award** in open division, 2005 GBPA Annual Retreat.

Title: *Biomedical Knowledge Extraction*

2005 **Best Dissertation Award**, Drexel University

2005 Honorable Mentions at 2005 Drexel Research Day, Drexel University

Title: *Robust Knowledge Extraction over Large Text Collections*

2004 **Best Paper award** at IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology

Title: *Extracting and Mining Protein-protein interaction Network from Biomedical Literature*

2004 **Nominated for a Best Paper award** at IEEE/ACM Web Intelligence Conference

Title: *Ontology-based Scalable and Portable Information Extraction System to Extract Biological Knowledge from Huge Collection of Biomedical Web Documents*

2004 **Dean's Award** at 2004 Drexel Research Day, Drexel University

Title: *Applying Mixture Hidden Markov Models to extracting protein-protein interactions in large unstructured natural language text collections*

2003 **Dean's Award** at 2003 Drexel Research Day, Drexel University

Title: *CS-Engine: an intelligent cross search engine for multiple heterogeneous databases*

2001 **Current Kudos**, Institute for Scientific Information

1999 **Current Kudos**, Institute for Scientific Information

1998 **Clayton A. Shepherd Scholarship**, Indiana University

1998 **Summer H. W. Wilson Fellowship**, Indiana University

1996 Fall-1997 Spring **Fellowships of SLIS**, Indiana University

### **PROFESSIONAL EXPERIENCE**

September 2014 – Present	Underwood Distinguished Professor, Yonsei University
March 2016 – Present	Professor, Department of Library and Information Science, Yonsei University

March 2012 – February 2016	Associate Professor, Department of Library and Information Science, Yonsei University
June 2011 – February 2012	Associate Professor, College of Computing Sciences, New Jersey Institute of Technology
June 2006 – May 2011	Assistant Professor, College of Computing Sciences, New Jersey Institute of Technology
July 2005 – May 2006	Adjunct Faculty, Department of Computer & Information Sciences, Temple University
January 2005 – May 2006	Senior Software Engineer, Middleware Server Technologies, Thomson Scientific
March 2003 – December 2004	Software Engineer II, Middleware Server Technologies, Thomson Scientific
January 2001 – March 2003	Software Engineer II, Knowledge Management, Thomson Scientific
February 1999 – January 2001	System Analyst, User Interface Design and Documentation, Thomson Scientific (formally called Institute for Scientific Information)

### **YONSEI SERVICES**

2014 Spring – Present, Department Head of Lib. And Info. Science Department

### **NJIT SERVICES**

2008 Spring – 2009 Spring, PhD Program Director of IS Department

### **PUBLICATIONS**

#### ***Book***

Song, M. (forthcoming). *Text Mining*, Chungram Publisher (in Korean).

Chen, C. and Song, M. (forthcoming). *Representing Scientific Knowledge: The Clarity of the Uncertain*, Springer.

Song, M. and Wu, Y-F. (2008). *Handbook of Research on Text and Web Mining Technologies*, IDEA Group Publishing published in September 2008.

**Book Chapter:**

1. Text Mining with the Stanford CoreNLP, Song, M. and Chambers, T. (2014). *Measuring Scholarly Impact: Methods and Practice*, Springer
2. Topic Modeling: Measuring Scholarly Impact Using a Topical Lens, Song, M. and Ying, D. (2014). *Measuring Scholarly Impact: Methods and Practice*, Springer
3. A Comparative Study of an Unsupervised Word Sense Disambiguation Approach, Xiong, W., Song, M., Watrous-deVersterre, L. (2012). *Applied Natural Language Processing: Identification, Investigation, Resolution*, IGI Global
4. Song, M. and Prat Tanapaisankit (2011). BioKeySpotter: an Unsupervised Keyphrase Extraction Technique in the Biomedical Full-text Collection, *DATA MINING: Foundations and Intelligent Paradigms*, in the series 'Intelligent Systems Reference Library'.
5. Song, M. and Song, I.-Y. (2007) *Automatic Query Expansion with Keyphrases and POS Phrase Categorization for Effective Biomedical Text Mining*. In *Book: Knowledge Discovery in Bioinformatics: Techniques, Methods, and Applications*, 197-208, Wiley Publishing.
6. Manchester, M. and Song, M. (2007) Text Categorization, in: *Encyclopedia of Data Warehousing and Mining*, 2nd Edition.
7. Maceli, M. and Song, M. (2007) Deep Web Mining through Web Services, in: *Encyclopedia of Data Warehousing and Mining*, 2nd Edition.
8. Song, M. and Hu, X., and Song, I.-Y. (2005) Information Extraction in Biomedical Literature. in *Encyclopedia of Data Warehousing and Data Mining*.

**International Journal Papers (Published and Accepted)**

1. Lee, K.H., Kim, S.Y., Kim, H.J., Song, M. (2017) Comparative Evaluation on Various Bibliometric Networks by Tomographic Content Analysis: An Application to Parkinson's Disease, *JASIST (SSCI)*
2. Baek, S.H., Kim, M.K. Kim, M.J., Kang, M.S., Yoo, H.J., Lee, N. H., Kim, Y.H., Song, M., and Lee, J.H. (2017). Metabolites distinguishing visceral fat obesity and atherogenic traits in the individuals with overweight, *Obesity (SCI)*
3. An, J.Y., Kim, N.H., Kan, M.Y., Chandrasekaran, M.K., and Song, M. (2017) Exploring Characteristics of Highly Cited Authors according to Citation Location and Content, *JASIST (SSCI)*
4. Song, M., Kim, S.Y., and Lee, K.H. (2017) Ensemble analysis of topical journal ranking in Bioinformatics, *JASIST (SSCI)*

5. Baek, S.H., Kim, M.K., Kim, M.J. Yoo, H.J., Lee, A., Ji, M.J., Song, M., and Lee, J.H. (2017). Relationship between changes in polyunsaturated fatty acids and aging-related arterial stiffness in overweight subjects 50 years or older over a 3-year period, *Journal of Clinical Lipidology* (SCI)
6. Amjad, T., Ding, Y., Xu, J., Zhang, C., Daud, A., Tang, J., & Song, M. (2017) Standing on the Shoulders of Giants, *Journal of Informetrics* (SSCI)
7. Amplayo, R.K. and Song, M. (2017) An adaptable fine-grained sentiment analysis for summarization of multiple short online reviews, *Data & Knowledge Engineering* (SCI)
8. Heo, G.E., Kang, K.Y., and Song, M. (2017) Analyzing the field of bioinformatics with the multi-faceted topic modeling technique, *BMC Bioinformatics* (SCIE)
9. Baek, S.H., Lee, D.H., Kim, M.J., Lee, J.H., Song, M (2017). Enriching Plausible New Hypothesis Generation in PubMed, *PLoS One* (SCIE)
10. Xu, J., Ding, Y., Song, M., and Chambers, T. (2016) Author credit-assignment schemas: A comparison and analysis, *JASIST* (SSCI)
11. Charidimou, A., Fox, Z., Werring, D.J., Song, M. (2016) Mapping the landscape of cerebral amyloid angiopathy research: a informetric analysis perspective, *Journal of Neurology, Neurosurgery, and Psychiatry* (SCI)
12. Charidimou, A., Song, M., Kim, S.Y. (2016) Exploring cerebral small vessel disease research using informetrics: a first glimpse into microbleeds, *International Journal of Stroke* (SCI) IM:4.029
13. Charidimou, A., Song, M. (2016) Evolving trends in cerebral amyloid angiopathy research themes: Insights from Medical Subject Heading analysis, *Journal of the Neurological Sciences* (SCI) IM: 2.474
14. Kim, H.J., Jeong, Y.K., Kim, Y.Y., Kang, K.Y., Song, M. (2016) Topic-based Content and Sentiment Analysis of Ebola Virus on Twitter and in the News, *Journal of Information Science* (SSCI)
15. Wang, B. and Song, M. (2015) Listen from microblog - do people tell us their company performance, Social Science Research Network ([http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2648806](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2648806))
16. Kim, Y.H., Baek, S.H., Charidimou, A., Song, M. (2016). Discovering new genes as a common trigger for pertinent diseases, *Journal of Alzheimer's Disease* (SCI)
17. Jeong, Y.K., Heo, G.E., Kang, K.Y., Yoon, D.S., Song, M. (2016) Trajectory Analysis of the Recent Drug Research Trend in Pancreatic Cancer, *Journal of Informetrics*

18. Dong, X., Xu, J., Ding, Y., Zhang, C., Zhang, K. & Song, M. (2016) Understanding the Correlations between Social Attention and Topic Trends of Scientific Publications, *Journal of Data and Information Science* (Inaugural issue)
19. Kim, H.J., Yoon, H.G., Kim, C.O., Song, M. (2016). Opinion Polarity Detection in Twitter Data Combining Topic Modeling and Shrinkage Regression, *Journal of Informetrics* (SSCI)
20. Lee, K.H., Kim, S.Y., Kim, H.J., Song, M. (2016) Comparative Evaluation on Various Bibliometric Networks by Tomographic Content Analysis: An Application to Parkinson's Disease, *JASIST* (SSCI)
21. Verspoor, K., Heo, G.E., Kang, K.Y., and Song, M. (2016) Establishing a baseline for literature mining of human genetic variants and their relationships to disease cohorts, *BMC Medical Informatics and Decision Making* (SCIE)
22. Zhu, Y.J., Song, M., and Yan, E. (2016) Identifying Liver Cancer and Its Relations with Diseases, Drugs, and Genes: A Literature-based Approach, *PLOS One* (SCIE)
23. Zhu, Y.J., Yan, E., and Song, M. (2016) Understanding the academic landscape of library and information science through faculty hiring data, *Scientometrics* (SSCI)
24. Kim, H.J., Jeoung, Y.K., and Song, M. (2016) Content- and Proximity-based Author Co citation Analysis Using Citation Sentences, *Journal of Informetrics* (SSCI)
25. Lee, K.H., Jung, H.J., and Song, M. (2016) Subject-method topic network analysis in communication studies, *Scientometrics* (SSCI)
26. Jung, H.J., Lee, K.H., Song, M. (2016) Examining Characteristics of Traditional and Twitter Citation, *Frontiers in Research Metrics and Analytics* (Inaugural issue)
27. Yu, Q., Ding, Y., Song, M., Song, S.J., Liud, J., Zhange, B. (2015) Tracing dataset usage: Detecting main paths in database citation networks, *Journal of Informetrics* (SSCI)
28. Song, M., Han, W.S., and Yu, W.J. (2015) Exploring Dictionary-based Bio-Entity Recognition Techniques, *BMC Medical Informatics and Decision Making* (SCIE)
29. Lee, H.Y., Kwak, J.E., Song, M., and Kim, C.W. (2015) Investigating the Relationship of Research and Education in the Field of Machine Learning using Co-phrase Analysis and Topic Modeling, *Scientometrics* (SSCI)
30. Lee, D.H., Kim, W.C., Charidimou, A., and Song, M. (2015) A bird's-eye view of Alzheimer disease research: reflecting different perspectives of indexers, authors, or citers in mapping the field, *Journal of Alzheimer's Disease* (SCI)

31. Charidimou, A., Fox, Z., Werring, D., Song, M. (2015) Cerebral amyloid angiopathy research: on the verge on an explosion?, *International Journal of Stroke* (SCI)
32. Wu, Y., Denny, J., S. Rosenbloom. S. T., Miller, R. A., Giuse, D., Song, M., Xu, H. (2015) Clinical Abbreviation Recognition and Disambiguation, *Applied Clinical Informatics* (SCIE)
33. Yunjung Pak, Young-jin Kim, Min Song, Yong-Hak Kim. (2015). Shock Waves of Political Risk on the Stock Market: The case of Korean Companies in the U.S. *Development and Society* 44(1)
34. Song, M., Heo, K.E., and Ding, Y. (2015) SemPathFinder: Semantic Path Analysis for Discovering Publicly Unknown Knowledge, *Journal of Informetrics* (SSCI)
35. Song, M., Kim, W.C., Lee, D.H., Heo, G.E., Kang, K.Y. (2015) PKDE4J: Entity and Relation Extraction for Public Knowledge Discovery, *Journal of Biomedical Informatics* (SCI)
36. Song, M., Kim, H.E.J, Kim, H.J (2015) Exploring Author Name Disambiguation on PubMed-scale, *Journal of Informetrics* (SSCI)
37. Song, M. Jeong, Y.K., and Kim, H.J. (2015) Identifying the topology of the K-pop video community on YouTube: A combined co-comment analysis approach, *JASIST* (SSCI)
38. Bleik, S., Mishra, M., Huan, J., Song, M. (2014) Text Categorization of Biomedical Data Sets using Graph Kernels and a Controlled Vocabulary, *IEEE/ACM Transactions on Computational Biology and Bioinformatics* (SCI)
39. Song, M. and Kim, S.Y., Zhang, G., and Ding, Y. (2014). Productivity and Influence in Bioinformatics: A Bibliometric Analysis using PubMed Central, *JASIST* (SSCI)
40. Song, M., Kim, M., and Jung, Y.K. (2014). Analyzing the Political Landscape of 2012 Korean Presidential Election in Twitter, *IEEE Intelligent System* (SCI)
41. Song, M., Han, N.G., Kim, Y.H., Ying, D., and Chamber, T. (2014). Discovering Implicit Entity Relation with the Gene-Citation-Gene Network, *PLOS One* (SCI)
42. Jung, Y.K., Song, M., Ying, D. (2014) Content-based Author Co-citation Analysis, *Journal of Informetrics* (SSCI)
43. Ding, Y., Song, M., Wang, X., Zhang, G., Zhai, C., and Chambers, T. (2014) Content-based citation analysis: The next generation of citation analysis, *JASIST* (SSCI)

44. Song, M., Heo, G.E., and Lee, D.H. (2014) Identifying the Landscape of Alzheimer's Disease Research with Network and Content Analysis, *Scientometrics* (SSCI)
45. Kim, M.C., Jung, Y.K., and Song, M. (2014) Investigating the Integrated Landscape of the Intellectual Topology in the Domain of Bioinformatics, *Scientometrics* (SSCI)
46. Jung, D.H. and Song, M. (2014) Time Gap Analysis by the Topic Model-based Temporal Technique, *Journal of Informetrics* (SSCI)
47. Rudniy, A., Song, M., and Geller, J. (2014) Longest Approximately Common Prefix method for duplicate detection of biomedical entities, *BMC Bioinformatics* (SCI)
48. Song, M., Heo, G.E., and Kim, S.Y. (2014). Analyzing Topic Evolution in Bioinformatics: Investigation of Dynamics of the Field with Conference Data in DBLP, *Scientometrics* (SSCI)
49. Kim, Y.W., Lee, D.H., Han, N.G., and Song, M. (2014) Exploring Characteristics of Video Consuming Behavior in Different Social Media Using K-pop Videos, *Journal of Information Science* (SSCI)
50. Hahm, J.E., Kim, S.Y., Kim, M.C., Song, M. (2013) Exploring Indexer's Effect in Keyphrase Extraction, *Information Research* (SSCI)
51. Ding, Y., Song, M., Han, J., Lin, L., Yu, Q., Ridenour, L. (2013). [Entitymetrics: Measuring the impact of entities](#), *PLOS One* (SCI)
52. Song, M., Yang, C., Tang, X. (2013). Detecting Evolution of Bioinformatics with a Content and Co-authorship Analysis, *SpringerPlus*. (SSCI)
53. Song, M. (2013) Opinion: Text Mining in the Clinic, *The Scientist* (SSCI)
54. Choi, J., Kim, K., Song, M., Lee, D.H. (2013) [Generation and Application of Drug Indication Inference Models Using Typed Network Motif Comparison Analysis](#), *BMC Medical Informatics and Decision Making* (SCI)
55. Tang, X., Yang, C., Song, M. (2013). Understanding the Evolution of Multiple Scientific Research Domains Using a Content and Network Approach. 64(5): 1065-1075. *JASIST*. (SSCI)
56. Bleik, S., Song, M. and Xiong, W. (2013) Enhancing Biomedical Concept Extraction using Semantic Relationship Weights, *International Journal of Data Mining and Bioinformatics* (SCI)
57. Kim, H.J. and Song, M. (2013) An Ontology-Based Approach to Sentiment Classification of Mixed Opinions in Online Restaurant Reviews *Lecture Notes in Computer Science Volume 8238, 2013, pp 95-108*



58. Ho, S. M., Song, M., Bieber, M., Zhang X. (2013) IntegraL Makes Sense Collective Intelligence Enabled by Anchor-based Federated Search Infrastructure, *JASIST* (SSCI)
59. Lee, S.J., Choi, J.J., Park, K.H., Song, M., and Lee, D.H. (2012) Discovering context-specific relationships from biological literature by using multi-level context terms, *BMC Medical Informatics and Decision Making* 2012. (SCIE)
60. Song, M. (2012) [Opinion: Text Mining Medicine \(Subtitle: Researchers should scour historic medical archives to discover knowledge that could inform today biomedical research and clinical practice\)](#) *The Scientist* (SSCI)
61. Song, M., Kim, S.Y. (2012) Detecting the Knowledge Structure of Bioinformatics by Mining Full-text Collections , *Scientometrics* (SSCI)
62. Zhang, L., Bieber, M., Song, M., Oria, V., and Millard, D. (2012) Supplementing Just-in-Time Hypermedia Functionality for Virtual Documents, Accepted in *International Journal on Digital Libraries*.
63. Song, M., Yu, H., and Han, W.S. (2011) A Semi-supervised Learning Technique to Extract Protein Interaction Sentences, *BMC Bioinformatics*
64. Lee, M., Lee, K. H., Song, M., Lee, D. (2011) Building the process-drug-side effect network to discover the relationship between biological Processes and side effects, *BMC Bioinformatics* 2011, 12(Suppl 2):S2 (29 March 2011)
65. Qi, T., Song, M., Yoon, S. J., Watrous-deVersterre, L. (2011) Combining Supervised Learning Techniques to Key-phrase Extraction for Biomedical Full-text, accepted in *International Journal of Intelligent Information Technologies (IJIT)*
66. Rudniy, A., Song, M., Geller, J. (2010) Detecting Duplicate Biological Entities Using Shortest Path Edit Distance, *International Journal of Data Mining and Bioinformatics*, 4(4): 395-410.
67. Ijaz, A.Z., Song, M. and Lee, D. (2010) MKEM: a Multi-level Knowledge Emergence Model for Mining Undiscovered Public Knowledge, *BMC Bioinformatics*, 11(Suppl 2):S3 doi:10.1186/1471-2105-11-S2-S3
68. Song, M. and Rudniy, A. (2010) Detecting Duplicate Biological Entities using Markov Random Field-based Edit Distance, *Knowledge and Information Systems*, 25(3): 371-387, 10.1007/s10115-009-0254-7.
69. Song, M. and Liu, H. (2010) AbbrevExtractor: a Robust Extraction Technique for Biomedical Literature, *International Journal of Functional Informatics and Personalised Medicine*, vol. 3, no. 2.

70. Song, M. Hu, X., Koppel, E. Yoo, I.Y. (2009) A Dynamic and Semantically-aware Technique for Document Clustering in Biomedical Literature, *International Journal of Data Warehousing and Mining (IJDWM)*, vol. 5, no. 4.
71. Duan, W., Song, M., Yates, A. (2009). Fast Max-margin Clustering for Unsupervised Word Sense Disambiguation in Biomedical Texts. *BMC Bioinformatics 2009, 10(Suppl 3):S4doi:10.1186/1471-2105-10-S3-S4*
72. Yoo, I. and Song, M. (2008) Biomedical Ontologies and Text Mining for Biomedicine and Healthcare, *Journal of Computing Science and Engineering (JCSE)*, June, 2(2): 109-136.
73. Torii, M., Hu, Z., Song, M., Wu, C., Hongfang Liu, H., (2007) A Comparison Study on Algorithms of Detecting Long Form for Short Forms in Biomedical Text, *BMC Bioinformatics. 2007; 8(Suppl 9): S5*.
74. Song, M, Song, I-Y., Hu, X., Allen R. (2007) "Integration of Association Rules and Ontology for Semantic-based Query Expansion", *Data and Knowledge Engineering*, 63(1): 63-75.
75. Song, M., Song, I.-Y., Hu, X., and Allen, R.B. (2005). KXtractor: an Effective Biomedical Information Extraction Technique Based on Mixture Hidden Markov Models, *LNCS Transactions on Computational Systems Biology*, 2: 68-81.
76. Hu, X., Lin, T.Y., Song, I-Y., Lin, X., Yoo, I., and Song, M. (2005) A Semi-supervised Efficient Learning Approach to Extract Biological Relationships from Web-based Biomedical Digital Library, *International Journal of Web Intelligence and Agent Systems*.
77. Song, M., Song, I-Y, and Chen, P.P. (2004). Design and Development of a Cross Search Engine for Multiple Heterogeneous Databases Using UML and Design Patterns, *Information Systems Frontiers: A Journal of Research and Innovation*, 6(1): 77-90.
78. Song, M. (2000). Visualization in Information Retrieval: A Three-Level Analysis, *Journal of Information Science*, 26(1): 3-19.
79. Dillon, A. and Song, M. (1997). An Empirical Comparison of the Usability for Novice and Expert Searchers of a Textual and a Graphical Interface to an Art-resource Database, *Journal of Digital Information*, 1, 12-20.
80. Beebe, C., Nedell, E., Song, M., Sullivan, J., Overfelt, K., Schatz, J., Davenport, E. (1994). New Technology and Publishing: Six Case Studies in Search of a Theory, *Aslib Proceedings*, 46(9): 217-224.

1. Jeong, Y. K. & Song, M. (2016). Applying content-based similarity measure to author co-citation analysis. In *Proceedings of iConference 2016*.
2. Kim, S. Y., Jeong, Y. K. & Song, M. (2015). An Experimental Study on Construction of a Sentiment Dictionary for Sentiment Classification of Korean Texts. In Proceedings of the Korean Library and Information Science Society Conference, Best Paper Awards
3. Kim, H.J., Oh, J.S., and Song, M. (2015) ConseQE: a Context-sensitive Query Expansion Technique in Biomedical Digital Libraries, *ICADL 15*
4. Verspoor, K., Heo, G.E., Kang, K.Y., and Song, M. (2015) Extraction of fine-grained semantic relations for the Human Variome, *DTMBIO 15*
5. Rudniy, A., Song, M., and Geller, J. (2014) Improved Shortest Path Edit Distance for Synonyms Identification, *BICoB 2014*
6. Kim, Y.W., Lee, D.H., Hahm, J.E., Han, N.G., and Song, M. (2014) Investigating Socio-cultural Behavior of Users Reflected in Different Social Channels on K-pop, *WWW14*.
7. Song, M. and Kim, M.C. (2013) RT<sup>2</sup>M : Real-time Twitter Trend Mining System, *International Conference on Social Intelligence and Technology 2013, College Station, Pennsylvania (SOCIETY 2013)*
8. Bleik, S., Song, M. and Han, W.S. (2013) External Knowledge-based Features for Naïve Bayes Biomedical Text Categorization *The Fifth International Conference on Emerging Databases-Technologies, Applications, and Theory (EDB 2013), Jeju Grand Hotel, Jeju Island, Korea*
9. Wu, Y., Denny, J., S. Rosenbloom. S. T., Miller, R. A., Giuse, D., Song, M., Xu, H. (2013) A Prototype Application for Real-time Recognition and Disambiguation of Clinical Abbreviations, *The Seventh International Workshop on Data and Text Mining in Biomedical Informatics, November 1, San Francisco, USA*.
10. Song, M., Han, W.S., Yu, W. (2013) BoDBES: a Boosted Dictionary-based Biomedical Entity Spotter *The Seventh International Workshop on Data and Text Mining in Biomedical Informatics, November 1, San Francisco, USA*.
11. Mishra, M., Huan, J., Bleik, S. and Song, M. (2012) Biomedical Text Categorization with Concept Graph Representations Using a Controlled Vocabulary, *BIOKDD 2012*
12. Kim, S.Y., Song, M. (2012) Understanding Dynamics of the Field of Information Science with Text Mining Techniques, *COLLNET 12*

13. Yang, C., Tang, X., Kim, S.Y., Song, M. (2012) A trend analysis of domain-specific literatures with content and co-author network similarity, *the 14th International Conference on Asia-Pacific Digital Libraries (ICADL 2012)*
14. Choi, J.J., Kim, K.M., Song, M., Lee, D.H. (2012) TNMCA: Generation and Application of Network Motif-Based Inference Models for Drug Repositioning, *DTMBIO 12*
15. Song, M., Yang, C., Tang, X., Han, W.S. (2012). Mapping the Field of Bioinformatics with a Content and Co-authorship Analysis, International Workshop on Biomedical and Health Informatics, Philadelphia, Oct. 4-7, 2012.
16. Markson, C. and Song, M. A Technique for Suggesting Related Wikipedia Articles using Link Analysis, *JCDL 2012*
17. Tanapaisankit, P., Watrous-De Versterre, L. and Song, M. Personalized Query Expansion in the QIC System, *JCDL 2012*
18. Watrous-Deversterre, L., Wang, C. and Song, M. Concept Chaining utilizing Meronyms in Text Characterization, *JCDL 2012*
19. Rudniy, A. Geller, J. and Song, M. "Histogram Difference String Distance for Enhancing Ontology Integration in Bioinformatics," accepted in Int. Conf. on Bioinf. and Comp. Biol., March 2012, Las Vegas, NV.
20. Song, M., Bleik, S., Yu, H., Han, W.S. (2011) Extracting Biomedical Concepts from Fulltext by Relative Importance in a Graph Model, *BHI*
21. Oh, J., Park, S., Yu, H., Song, M. and Park, S.T. (2011). Novel Recommendation based on Personal Popularity Tendency, *The IEEE International Conference on Data Mining series (ICDM)*, 2011.
22. Xu, G., Song, M., and Feng, J. (2011). Research on Multi-agent Comprehensive Evaluation Model Based on Attribute Coordinate, *IEEE International Conference on Granular Computing*. 2011.
23. Tanapaisankit, P. Song, M., Fox, E. A. (2011) Developing a Concept Extraction Technique with Ensemble Pathway, *JCDL 2011*
24. Bleik, S., Wei, X., Wang, Y., Song, M. (2010) Biomedical Concept Extraction using Concept Graphs and Ontology-based Mapping, *BIBM*
25. Lee, S., Lee, D. H., Song, M. (2010) Discovering Biological Processes and Side Effects Relationship Using the Process-drug-side effect Network, *DTMBIO*
26. Rudniy, A., Geller, J., and Song, M. (2010) Shortest Path Edit Distance for Enhancing UMLS Integration and Audit, accepted in *American Medical Informatics Association (AMIA) Annual Symposium*

27. Song, M., Yu, W. J., and Han, W. S. (2010) Combining Active Learning and Semi-supervised Learning Techniques to Extract Protein Interaction Sentences, *BIOKDD 10, in conjunction with KDD 2010*, Washington, D.C. July 25.
28. Rudniy, A., Song, M., and Geller, J. (2010) Shortest Path Edit Distance for Detecting Duplicate Biological Entities. *ACM International Conference on Bioinformatics and Computational Biology*
29. Ho, S. M., Song, M., Bieber, M., (2010) IntegraL: The Effectiveness of a Link-based Federated Search Infrastructure, *iConference 2010*.
30. Xiong, W., Song, M., Watrous-deversterre, L. (2010) A Quantitative Assessment of SENSATIONAL with an Exploration of Its Applications, *the 23rd Florida Artificial Intelligence Research Society Conference (FLAIRS 2010)*.
31. Song, M. and Murillo, J. (2009) An Outcome Discovery System to Determine Mortality Factors in Primary Care Facilities, *DTMBIO 09*.
32. Song, M., Ruecker, S., and Youngman, P. (2009) Indications of Emotional Connection: Epistolary Text Mining for Intimate Language, *BookOnline 09*, October 2, Corfu, Greece
33. Song, M., Ho, S.M., Bieber, M., Koppel, E., Hamidullah, V., and Bokota, P. (2009) A Scalable Digital Library Infrastructure Expands Search and Beyond, *BookOnline 09*, October 2, Corfu, Greece
34. Qi, T., Zhang, Y., and Song, M. (2009). Text Mining for Bioinformatics: State of the Art Review, 2009 *the 2nd IEEE International Conference on Computer Science and Information Technology (ICCSIT 2009)*.
35. Qi, T., Yagci, A., and Song, M. (2009). Extraction of Key-phrases from Biomedical Full-text with Supervised Learning Techniques, *15th Americas Conference on Information Systems*.
36. Bleik, S., Smalter, A., Song, M., Huan, J. and Lushington, G. (2009) CGM: A Biomedical Text Categorization Approach Using Concept Graph Mining, *Workshop of Applications of Machine Learning in Bioinformatics in conjunction with BIBM 09*.
37. Song, M. and Bieber, M. (2008). IntegraL: Lightweight Link-based Integration of Heterogeneous Digital Library Collections and Services in the Deep Web, *The Semantic Web meets the Deep Web workshop, in conjunction with IEEE Joint Conference on E-Commerce Technology and Enterprise Computing, E-Commerce and E-Services 2008*. 20-26
38. Song, M., Hu, X., Koppel, E. Yoo, I.Y. Document Clustering by Semantic Smoothing and Dynamic Growing Cell Structure (DynGCS) for Biomedical Literature, *10th International Conference on Data Warehousing and Knowledge*

*Discovery (DaWaK 2008)*, Turin, Italy, 217-226

39. Song, M. and Rudniy, A. (2008) Markov Random Field-based Edit Distance for Entity Matching, Biomedical Literature, *International Conference on Bioinformatics and Biomedicine*, 2008, 457-460.
40. Song, M. and Chang, P. (2008) Automatic Extraction of Abbreviation for Emergency Management Websites, *International Community on Information Systems for Crisis Response and Management*, Washington, DC, USA, May 4-7, 2008.
41. Song, M. and Yoo, I.Y. (2007) A Hybrid Abbreviation Extraction Technique for Biomedical Literature, *IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*. November 2-4, 2007.
42. Song, M., Song, I-Y, Lee, K.J., and Bieber M. (2006) Automatic Extraction of Creating a Lexical Repository of Abbreviations in the Biomedical Literature, *8th International Conference on Data Warehousing and Knowledge Discovery (DaWaK 2006)*.
43. Song, M., Song, I.-Y., Allen, R., and Obradovic, Z. (2006) Keyphrase Extraction-Based Query Expansion in Digital Libraries, *Joint Conference on Digital Libraries*, Chapel Hill, NC, June 11-15.
44. Zhu, W., Song, M., and Allen R. (2005). TREC 2005 Enterprise Track Results from Drexel, *14th Text REtrieval Conference (TREC 2005)*, National Institute of Standards and Technology (NIST). November 15-18, Gaithersburg, Maryland USA, 415-420.
45. Hu X., Yoo I., Song M., Y. Zhang, I-Y Song, Mining Undiscovered Public Knowledge from Complementary and Non-interactive Biomedical Literature through Semantic Pruning, *ACM Fourteen Conference on Information and Knowledge Management (ACM CIKM 2005)*, 31st October - 5th November, 2005 Bremen, Germany.
46. Song, M., Song, I-Y., Lee, K.J. (2005) Automatic Unsupervised Keyphrase-based Query Expansion for Biomedical Domain, *International Conference on Knowledge Management*, Westin Charlotte, North Carolina on October 27-28.
47. Song, M, Song, I-Y., Hu, X., Allen R. (2005) Semantic Query Expansion Combining Association Rules with Ontologies and Information Retrieval Techniques, *Data Warehousing and Knowledge Discovery (DaWak 2005)*.
48. Song, M., Song, I.-Y., Hu, X., and Allen, R.B. (2005). Integrating Text Chunking with Mixture Hidden Markov Models for Effective Biomedical Information Extraction, *International Workshop on Bioinformatics Research and Applications*,

Emory University, Atlanta, USA, May 22-25.

49. Song, M., Song, I.-Y., Hu, X., and Allen, R.B. (2005). DocSpotter: an Automatic Unsupervised Querying Algorithm for Efficient Information Extraction in Biomedical Domain, *9<sup>th</sup> Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2005)*, Vietnam, May 18-20.
50. Hu, X., Yoo, I., Song, I.-Y., Song, M, Han, J., and Lechner, M. (2004). Extracting and Mining Protein-protein interaction Network from Biomedical Literature, *2004 IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology*. (**Best Paper award**).
51. Hu X., Lin T.Y, Song I-Y. Lin X. Yoo, I., Lechner M., and Song, M. (2004). *Ontology-based Scalable and Portable Information Extraction System to Extract Biological Knowledge from Huge Collection of Biomedical Web Documents*, 2004 IEEE/ACM Web Intelligence Conference, 77-83. (**Nominated for a Best Paper award**).
52. Song, M, Song, I.-Y., and Hu, X. (2004). Designing and Developing Flexible Keyphrase Extraction System with Unified Modeling Language (UML), *ASIS&T 2004 Annual Meeting; "Managing and Enhancing Information: Cultures and Conflicts*, Providence, Rhode Island November 13 – 18, 367-372.
53. Song, M., Song, I.-Y., and Hu, X. (2004). An Efficient Keyphrase Extraction System Using Data Mining and Natural Language Processing Techniques, *First International Workshop on Semantic Web Mining and Reasoning (SWMR 2004) In conjunction with the 2004 IEEE/WCI/ACM International Conference on Web Intelligence*. Sept. 20-24, 2004, Beijing, China.
54. Song, M, Song, I.-Y., and Hu, X. (2003). KPSpotter: A Flexible Information Gain-based Keyphrase Extraction System, *Fifth International Workshop on Web Information and Data Management (WIDM'03), In Conjunction with the 12th International Conference on Information and Knowledge Management (CIKM 2003)*, November 7-8, 2003.
55. Song, M. and Song, I.-Y. (2003). Developing a Cross Search Engine for Multiple Heterogeneous Databases, *2003 Information Resources Management Association (IRMA) International Conference*, May 18-21, 2003, Philadelphia, USA.
56. Song, M. and Galardi, P. (2001). Semantic Relationships between Highly Cited Articles and Citing Articles in Information Retrieval, *Proceedings of the 64<sup>th</sup> ASIST Annual Meeting*, 38: 171-181.
57. Song, M. and Song, I.-Y. (2001). A Case Study for Web-based Data Delivery E-commerce Design, *Informing Science Conference 01*, June 19-22 Crakow, Poland.

58. Song, M. (1998). BiblioMapper: A Cluster-based Information Visualization Technique. *IEEE Symposium on Information Visualization (InfoVis 1998), Sponsored by the IEEE Computer Society Technical Committee on Computer Graphics*, October 19-20, 1998 Research Triangle Park, NC, 130-136.
59. Song, M. (1998). Cluster-based and Association-based Visualization Systems as Information Exploration Tools, In: *the 9<sup>th</sup> ASIS SIG/CR Classification Research Workshop: An interdisciplinary meeting*. Pittsburgh, PA, October 25.
60. Song, M (1998). Can Visualizing Document Space Improve User's Information Foraging?, *1998 Annual Meeting of American Society for Information Science*, Pittsburgh, PA October 26-29, 118-129.
61. Song, M and Gillespie, T. (1997). BiblioMapper: Visualizing a Database of Technical Reports. *Proceedings of HCI International '97: 7<sup>th</sup> International Conference on Human-Computer Interaction jointly with 13<sup>th</sup> Symposium on Human Interface (Japan)*. August 24-29, San Francisco, California, 87.
62. Song, M. (1997). Visualization for Complex Large-Scale Systems: Issues and Research Agenda, In: *the proceedings of AIS 97: Training and Use of Emerging Technologies for Information System Track*, August 15-17, Indianapolis, IN, 543-546.

### ***Presentations***

1. Ho, S.M., Song, M., Bieber, M. (2010). IntegraL connects data, users and scientists. *Proceedings of 36<sup>th</sup> Annual Conference of International Association for Social Science Information Services & Technology (IASSIST 2010)*, June 1-4, 2010.
2. Song, M. (2008) A Markov Random Field-based Edit Distance (MRFED) Algorithm for Gene Synonym Matching, *Emerging Information and Technology – Bioinformatics (EITC-Bio) 2008*, Princeton, NJ.
3. Song, M, Bieber, M., Kopel, E., Lori. (2008) IntegraL: Lightweight Link-based Integration of Heterogeneous Digital Library Collections, *NSDL*, Washington, D.C., Oct.
4. Song, M (2005) Robust Knowledge Extraction over Large Biomedical Text collections, *Greater Philadelphia Bioinformatics Alliance*, October 14, 2005, Penn State Great Valley, Malvern, PA. (**Poster Competition Honorable Mention award in Open Division.**)
5. Song, M. and Chen, C. (2003). Investigation of Power Law Distribution of Citation Data in the field of Medicine, *9th International Conference Scientometrics and Informetrics*, China



6. Song, M. and Lin, X. (2002), Interactive Visualization System with Multidimensional Scaling, *American Society for Information Science and Technology ASIST 2002 Annual Meeting November 18-21, 2002 \* Wyndham Franklin Plaza Hotel \* Philadelphia, PA*, 39: 562-563.
7. Song, M. and Song, I.-Y. (2002). Developing a Cross-Search Component for a Web Information Retrieval System Using UML and Design Patterns, *1st International Semantic Web Conference (ISWC2002) June 9-12th, 2002 Sardinia, Italy*.
8. Song, M. (1997). Can Visualizing Document Space Improve User's Information Foraging?: Research in Progress. *Connections 97: The Third Great Lakes Information Science Conference*, October 24-25, pp. 17 1997

### **Non-refereed journal**

1. Song, M. and Obradovic, Z. (2007) Report on ACM Text Mining in Bioinformatics (TMBIO 2006), *SIGIR Forum*, vol 41, issue 1.

### **GRANT EXPERIENCE**

#### ***Awarded NSF Grants***

1. PI - ER 2011: Fostering Interdisciplinary Research and Education in Software Engineering, Amount: \$12,000, to run through 08/12
2. PI - Title: QIC: Query in Context for Educational Collections, Amount: \$149,985.00, to run through 09/11.
3. PI - Title: QuEST: Revolutionizing Repository Cross-referencing to Transform Discovery of Teaching Materials, Amount: \$149,974.00, to run through 09/12
4. Co-PI - Title: Integral: Expanding the NSDL Reach to Traditional Libraries, Amount: \$849,997, to run through 12/09.

#### ***Awarded Institute of Museum and Library Services (IMLS) Grant***

1. Co-PI - Title: IntLib: Integrating Library Collections and Services, Amount: \$500,000, to run through 12/09.

#### ***Awarded Korean National Research Foundation Grants***

1. PI – Title: Future Knowledge Service Model based on Big Data, Amount: \$1,800,000 (09/14 – 08/19)
2. PI – Title: Multi-facet Text-mining System Development for MCMT Analysis, Amount: \$2,000,000 (09/14 – 08/21)
3. PI – Title: Cohesive Ecology of the Cyber Community: A Social Media-driven Approach, Amount: \$ 300,000 (09/12 – 08/14)
4. PI – Title: Building Community Cohesion through Enhancing Citizenship Behaviors, Amount: \$800,000 (09/15 – 08/18)

#### ***Awarded Microsoft Research Grants***

1. PI – Title: Topic, Concept, and Corpus-Aware Novelty Detection Technique for Research Articles, Amount: \$30,000 (03/16 - 03/17)

#### **NSF Panels**

1. NSF Panel for CRI – 2007
2. NSF Panel for IIS Core Program – 2008
3. NSF Panel for CISE Career Program – 2009
4. NSF Panel for HCC Core Program - 2010

#### **CONFERENCE PROGRAM COMMITTEE SERVICE**

##### **Organizing Conference**

1. Co-program chair: Seventh International Conference on Emerging Databases: Technologies, Applications, and Theory (EDB 2017), in Busan, Korea, 2017
2. Co-workshop chair: 25th ACM International Conference on Information and Knowledge Management (CIKM 2016), in Indianapolis, USA, 2016
3. Co-program chair: Sixth International Workshop in Data and Text Mining in Biomedical Informatics (DTMBIO 2015), in Melbourne, Australia, 2015
4. Co-chair: the 14th International Conference on Ontologies, Databases, and Applications of Semantics, 2015 (<http://www.onthemove-conferences.org/index.php/odbase2014>)
5. Co-program chair: Sixth International Workshop in Data and Text Mining in Biomedical Informatics (DTMBIO 2014), in Shanghai, China, 2014
6. Co-program chair: Sixth International Workshop in Data and Text Mining in Biomedical Informatics (DTMBIO 2013), in San Francisco, USA, 2013
7. Financial support chair: 2013 International Conference on Information Society (i-Society 2013), Toronto, Ontario, Canada.

8. Co-program chair: Sixth International Workshop in Data and Text Mining in Biomedical Informatics (DTMBIO 2012), in Hawaii, USA, 2012
9. Co-program chair: Fifth International Workshop in Data and Text Mining in Biomedical Informatics (DTMBIO 2011), in Glasgow, UK, 2011
10. Co-program chair: International Workshop on Biomedical and Health Informatics, Atlanta, USA, 2011
11. Track Co-Chairs: Harnessing Social Media for Business Intelligence, Mini-track in BI, AMCIS 2011.
12. Co-travel award chair: The Nineteenth Conference on Information and Knowledge Management, Toronto, Canada, 2010
13. Co-program chair: Fourth International Workshop in Data and Text Mining in Bioinformatics (DTMBIO 2010), in Toronto, Canada, 2010
14. Workshop chair: The Eighteenth Conference on Information and Knowledge Management, in Hong Kong, China, 2009
15. Co-program chair: Third International Workshop in Data and Text Mining in Bioinformatics (DTMBIO 2009), in Hong Kong, China, 2009
16. Co-chair: Second International Workshop in Data and Text Mining in Bioinformatics (DTMBIO 2008), in Napa Valley, CA, USA
17. Co-chair: International Workshop on Biomedical and Health Informatics in conjunction with the IEEE International Conference on Bioinformatics and Biomedicine 2008 (BIBM 2008), Philadelphia, PA, USA, November 5-7, 2008
18. Registration chair: IEEE International Conference on Bioinformatics and Biomedicine 2008 (BIBM 2008), Philadelphia, PA, USA, November 5-7, 2008
19. Co-chair: International Workshop on Knowledge Discovery and Management in Health Informatics in conjunction with the IEEE International Conference on Bioinformatics and Biomedicine, November 2-4 2007, Silicon Valley, USA
20. Local chair of 2007 IEEE/INFORMS International Conference on Service Operations and Logistics, and Informatics (SOLI)
21. Co-chair of International Workshop in Text Mining in Bioinformatics (TMBIO 2006), in Washington D.C.

#### **Conference Program Committee**

1. ICDE 2015
2. BigComp 2015
3. BigComp 2014
4. CIKM 2013,

5. Joint Conference on Digital Libraries, JCDL 2012
6. IEEE International Conference on Bioinformatics and Biomedicine, BIBM 2012
7. BMEI 2012
8. The Twenty First Conference on Information and Knowledge Management, CIKM 2012
9. GrC 2012
10. ACM-BCB 2012
11. HI-KDD 2012
12. The Twenty Conference on Information and Knowledge Management, Glasgow, UK, 2011
13. The International workshop on Data Mining in Bioinformatics (BIOKDD'11)
14. The Nineteenth Conference on Information and Knowledge Management, Toronto, Canada, 2010
15. ICDM International Workshop on Mining Multiple Information Sources (MMIS)
16. Workshop on Language Technology applied to biomedical and health documents (BioSEPLN 2010)
17. The Joint Conference of 23rd International Conference on the Computer Processing of Oriental Languages (ICCPOL 2010)
18. The 2010 IEEE International Conference on Granular Computing
19. The International workshop on Data Mining in Bioinformatics (BIOKDD'10)
20. The 10<sup>th</sup> IEEE International Conference on Data Mining (ICDM 2010)
21. The 9<sup>th</sup> IEEE International Conference on Data Mining (ICDM 2009)
22. The 2009 IEEE International Conference on Granular Computing
23. The 7th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-2009)
24. The 2008 IEEE International Symposium on Data Mining and Information Retrieval (IEEE DMIR-08)
25. 10th International Conference on Data Warehousing and Knowledge Discovery (DaWaK 2008) Turin, Italy, September 2-5, 2008
26. IEEE ICDM Workshop on Mining and Management of Biological Data in conjunction with IEEE International Conference of Data Mining (ICDM 07), October 28, 2007, Omaha, NE, USA.
27. The 2007 IEEE International Symposium on Data Mining and Information Retrieval (IEEE DMIR-07) in conjunction with the IEEE 21st International Conference on Advanced Information Networking and Applications (AINA-07), May 21-23, 2007 Sheraton Fallsview Hotel, Niagara Falls, Ontario, Canada

28. 2007 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), November 2-4, 2007, San Jose, California, USA
29. GrC 2006 IEEE International Conference On Granular Computing, Georgia State University, Atlanta, USA, May 10-12, 2006, Sponsored by the IEEE Computational Intelligence Society
30. GrC 2005 IEEE International Conference On Granular Computing, Beijing, China, July 25-27, 2005.
31. The 2004 International Conference on Computer and Information Technology Wuhan, China, 14-16 September 2004.
32. First International Workshop on Semantic Web Mining and Reasoning (SWMR 2004), in conjunction with the 2004 IEEE/WCI/ACM International Conference on Web Intelligence.

**EXTERNAL REVIEWER FOR JOURNALS, INTERNATIONAL CONFERENCES AND FUNDING AGENCY**

1. 2010 Science & Engineering Research Council (SERC), part of the Agency for Science, Research & Technology (A\*STAR), Science & Engineering Research Council (SERC) in Singapore.
2. The 14th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2010
3. Journal of Advances in Bioinformatics, 2010
4. The Eighteenth Conference on Information and Knowledge Management, 2009
5. The 13th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2009
6. 2007 Science & Engineering Research Council (SERC), part of the Agency for Science, Research & Technology (A\*STAR), Science & Engineering Research Council (SERC) in Singapore.
7. The 24rd International Conference on Conceptual Modeling (ER2005)
8. The Tenth International Conference on Rough Sets, Fuzzy Sets, Data Mining, and Granular Computing (RSFDGrC 2005)
9. The 7th Data Warehousing and Knowledge Discovery (DAWAK) 2005
10. The First International Workshop on Digital Government: Systems and Technologies (DGOV) 2004
11. The 16th International Conference o Advanced Information Systems Engineering (CaiSE) 2004
12. The 23rd International Conference on Conceptual Modeling (ER2004)

13. The 4th International Conference on Computer and Information Technology (CIT) 2004
14. The First International Workshop on Semantic Web Mining and Reasoning (SWMR) 2004
15. The 6th Data Warehousing and Knowledge Discovery (DAWAK) 2004
16. 4<sup>th</sup> International Conference on Web Information Systems Engineering (WISE) 2003
17. 22nd International Conference on Conceptual Modeling (ER 2003)
18. National Science Foundation Information Technology Research (NSF ITR) 2004

### **INVITED TALK**

1. Title: Adaptive Text Mining for Large Unstructured Text Collection, 12/21/2006, at Georgetown University. I was invited by Department of Biostatistics, Bioinformatics, and Biomathematics at Georgetown University Medical Center.
2. Title: Sensational: An Unsupervised Word Sense Disambiguation Technique for Information Retrieval, 05/26/09, at Seoul National University
3. Title: Sensational: An Unsupervised Word Sense Disambiguation Technique for Information Retrieval, 05/29/09, at Yonsei University
4. Title: Sensational: An Unsupervised Word Sense Disambiguation Technique for Information Retrieval, 06/01/09, at KyungPook National University
5. Title: Sensational: An Unsupervised Word Sense Disambiguation Technique for Information Retrieval, 06/18/09, at Korea University
6. Title: Query In Context (QIC): Incorporating Context into Search, 04/01/2010, at Drexel University

### **PPROFESSIONAL MEMBERSHIPS**

1. American Society for Information Science & Technology (ASIST)
2. Association for Computing Machinery (ACM)
3. Institute of Electrical and Electronics Engineers (IEEE)

### **EDITORIAL ACTIVITIES**

1. Associated Editor - Frontiers in Research Metrics and Analytics
2. Editorial board member – Journal of Informetrics
3. Editorial board member - Scientometrics
4. Editorial board member - International Journal of Data Mining and Bioinformatics
5. Editorial board member - Online Journal of Bioinformatics

6. Editorial board member - Journal of Data and Information Science
7. Editorial board member - International Journal of Computational Models and Algorithms in Medicine

## **RESEARCH SUPERVISION**

### ***Postdoctoral***

Li Zhang (CS, NJIT) – 2006 Spring to 2007 December

Research Topic: Hypertext System

Current Affiliation: Associate Scientist, GE Healthcare

Shuyuan Mary Ho (Information Studies, Syracuse University) – 2009 May to 2009 December

Research Topic: User Information Seeking Behavior

Current Affiliation: Assistant Professor at Florida State University

Keeheon Lee – 2014 Fall to present

Dissertation title: Technology Analysis and Forecasting Using Data Mining and Simulation

Seung Han Baek – 2015 Fall to present

Research Topic: Bioinformatics

### ***Ph.D. Thesis Advisee***

Alex Rudniy (Co-advisor: James Geller, CS) – 2009 Spring to 2011 Fall

Research Topic: Duplicate Record Detection

Current Affiliation: Assistant Professor at Fairley Dickson University

Said Bleik (IS) – 2009 Spring to 2012 Spring

Research Topic: Biomedical Text/Graph Mining

Current Affiliation: Data Scientist at MicroSoft Research

Suyeon Kim – 2012 Spring to 2014 Spring

Dissertation Title: Domain Analysis of Bioinformatics Using the Ontology-based Concept Network

Current Affiliation: Assistant Professor at Kyung-gi University

Erin H. Kim – 2013 Spring to 2015 Spring

Dissertation Title: Prediction of Research Fronts Using a Factor Graph Model in the Biomedical Literature

Current Affiliation: Post-doc Fellow at Yonsei University

Keeheon Lee – 2014 Fall – 2016 Spring

Current Affiliation: Assistant Professor at Yonsei University

Sungjeon Song – 2012 Spring to present

Research Topic: Biomedical text mining

Yonghwan Kim – 2012 Spring to present

Research Topic: Biomedical text mining

Goeun Heo – 2012 Spring to present

Research Topic: Biomedical text mining

Yookyung Jeong – 2012 Spring to present

Research Topic: Social media mining + Bibliometrics

### ***Ph.D. Thesis Committee***

Chris Leberknight (IS) 2008 Spring – 2009 Fall

Research Topic: Information Security

First Employment: Postdoctoral Research Fellow at Princeton Univ.

Umar Qasim (IS) 2009 Spring – 2013 Spring

Research Topic: Recommendation System

Ritu Khare (iSchool, Drexel University) 2009 Spring – 2012 Fall

Research Topic: Web Information Extraction

First Employment: NIH

### ***Ph.D. Research Project***

Wei Xiong (IS) – 2008 Fall to 2010 Fall – Project Title: Word Sense Disambiguation

Yiran Wang (IS) – 2009 Fall to 2009 Fall – Project Title: Social Network Analysis



