

Benjamin A. Carterette

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Education

Ph.D. Computer Science, University of Massachusetts Amherst, 2008.
Dissertation title: Low-cost and Robust Evaluation of Information Retrieval Systems.

M.S. Computer Science, University of Massachusetts Amherst, 2008.

B.S. Mathematics and Statistics, minor in Computer Science, Miami University, 2000.

Research Positions

Associate Professor Department of Computer & Information Sciences	2014–present University of Delaware, Newark, DE
Assistant Professor Department of Computer & Information Sciences	2008–2014 University of Delaware, Newark, DE
Visiting Researcher Carnegie Mellon University	September 2010–January 2011 Pittsburgh, PA
Visiting Researcher Yahoo! Labs	July 2009 Santa Clara, CA
Research Assistant Advisor: Prof. James Allan	2003–2008 University of Massachusetts Amherst

Publications

Conference Papers

1. A. Bah, B. Carterette. *Aggregating Results from Multiple Related Queries to Improve Web Search Over Sessions*. In *Proceedings of the 10th Asia Information Retrieval Societies Conference* (2014).
2. P. Chandar, B. Carterette. *Preference Based Evaluation Measures for Novelty and Diversity*. In *Proceedings of the 36th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2013).
3. B. Carterette, E. Kanoulas, E. Yilmaz. *Incorporating Variability in User Behavior into Systems Based Evaluation*. In *Proceedings of the 21st ACM International Conference on Information and Knowledge Management* (2012).
4. W. Webber, P. Chandar, B. Carterette. *Alternative Assessor Disagreement and Retrieval Depth*. In *Proceedings of the 21st ACM International Conference on Information and Knowledge Management* (2012).
5. D. Zhu, B. Carterette. *Improving Health Records Search using Multiple Query Expansion Collections*. In *Proceedings of the 2012 IEEE International Conference on Bioinformatics and Biomedicine* (2012).
6. P. Chandar, B. Carterette. *Using Preference Judgments for Novel Document Retrieval*. In *Proceedings of the 35th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2012).

7. B. Carterette, E. Kanoulas, E. Yilmaz. *Simulating Simple User Behavior for System Effectiveness Evaluation*. In *Proceedings of the 20th ACM International Conference on Information and Knowledge Management* (2011).
8. B. Carterette. *Model-Based Inference About IR Systems*. In *Proceedings of the 3rd International Conference on the Theory of Information Retrieval* (2011).
9. B. Carterette. *System Effectiveness, User Models, and User Utility: A Conceptual Framework for Investigation*. In *Proceedings of the 34th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2011).
10. E. Kanoulas, B. Carterette, P. D. Clough, M. Sanderson. *Evaluating Multi-Query Sessions*. In *Proceedings of the 34th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2011).
11. L. Thota, B. Carterette. *Within-Document Term-Based Index Pruning with Statistical Hypothesis Testing*. In *Proceedings of the 33rd European Conference on Information Retrieval (ECIR)* (2011).
12. J. Arguello, F. Diaz, J. Callan, B. Carterette. *A Methodology for Evaluating Aggregated Search Results*. In *Proceedings of the 33rd European Conference on Information Retrieval (ECIR)* (2011).
13. B. Carterette, E. Kanoulas, V. Pavlu, H. Fang. *Building Reusable Test Collections Through Experimental Design*. In *Proceedings of the 33rd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2010).
14. B. Carterette, I. Soboroff. *The Effect of Assessor Error on IR System Evaluation*. In *Proceedings of the 33rd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2010).
15. B. Carterette, E. Gabrilovich, V. Josifovsky, D. Metzler. *Measuring the Reusability of Test Collections*. In *Proceedings of the 3rd ACM International Conference on Web Search and Data Mining (WSDM)* (2010), pp. 231–240.
16. B. Carterette, P. Chandar. *Probabilistic Models of Ranking Novel Documents for Faceted Topic Retrieval*. In *Proceedings of the 18th ACM International Conference on Information and Knowledge Management (CIKM)* (2009), pp. 1287–1296.
17. B. Carterette. *An Analysis of NP-Completeness in Novelty and Diversity Ranking*. In *Proceedings of the 2nd International Conference on the Theory of Information Retrieval* (2009), pp. 200–211.
18. B. Carterette. *On Rank Correlation and the Distance Between Rankings*. In *Proceedings of the 32nd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2009), pp. 436–443.
19. B. Carterette, V. Pavlu, E. Kanoulas, J. Allan, J. Aslam. *If I Had a Million Queries*. In *Proceedings of the 31st European Conference on Information Retrieval (ECIR)* (2009), pp. 288–300.
20. B. Carterette, V. Pavlu, E. Kanoulas, J. Aslam, J. Allan. *Evaluation Over Thousands of Queries*. In *Proceedings of the 31st Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2008), pp. 651–658.
21. B. Carterette, P. Bennett, D. M. Chickering, S. Dumais. *Here or There: Preference Judgments for Relevance*. In *Proceedings of the 30th European Conference on Information Retrieval (ECIR)* (2008), pp. 16–27.
22. B. Carterette, R. Jones. *Evaluating Search Engines by Modeling the Relationship Between Relevance and Clicks*. In *Proceedings of the 21st Annual Conference on Neural Information Processing Systems (NIPS)* (2007), pp. 217–224.
23. B. Carterette, M. D. Smucker. *Hypothesis Testing with Incomplete Relevance Judgments*. In *Proceedings of the 16th ACM International Conference on Information and Knowledge Management (CIKM)* (2007), pp. 643–652.

24. M. D. Smucker, J. Allan, B. Carterette. *A Comparison of Statistical Significance Tests for Information Retrieval Evaluation*. In *Proceedings of the 16th ACM International Conference on Information and Knowledge Management (CIKM)* (2007), pp. 623–632.
25. B. Carterette. *Robust Test Collections for Retrieval Evaluation*. In *Proceedings of the 30th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2007), pp. 8–15.
26. B. Carterette, J. Allan, R. Sitaraman. *Minimal Test Collections for Retrieval Evaluation*. In *Proceedings of the 29th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2006), pp. 268–275.
27. B. Carterette, J. Allan. *Incremental Test Collections*. In *Proceedings of the 14th ACM International Conference on Information and Knowledge Management (CIKM)* (2005), pp. 680–687.
28. J. Allan, B. Carterette, J. Lewis. *When Will Information Retrieval Be “Good Enough”?*. In *Proceedings of the 28th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2005), pp. 433–440.

Journal Papers

29. D. Zhu, D. Li, B. Carterette, H. Liu. *Integrating information retrieval with distant supervision for Gene Ontology annotation*. In *Database: The Journal of Biological Databases and Curation*, 2014.
30. D. Zhu, S. Wu, B. Carterette, H. Liu. *Using Large Clinical Corpora for Query Expansion in Text-based Cohort Identification*. In *Journal of Biomedical Informatics*, 49:275–281, 2014.
31. C. N. Arighi, B. Carterette, K. B. Cohen, M. Krallinger, W. J. Wilbur, P. Fey, R. Dodson, L. Cooper, C. E. Van Slyke, W. Dahdul, P. Mabee, D. Li, B. Harris, M. Gillespie, S. Jimenez, P. Roberts, L. Matthews, K. Becker, H. Drabkin, S. Bello, L. Licata, A. Chatr-Aryamontri, M. L. Schaeffer, J. Park, M. Haendel, K. Van Auken, Y. Li, J. Chan, H. Muller, H. Cui, J. P. Balhoff, J. C. Wu, Z. Lu, C. Wei, C. O. Tudor, K. Raja, S. Subramani, J. Natarajan, J. M. Cejuela, P. Dubey, C. Wu. *An Overview of the BioCreative 2012 Workshop Track III: Interactive Text Mining Task*. In *Database: The Journal of Biological Databases and Curation*, 2013.
32. D. Ehrenthal, K. Maiden, A. Rao, D. West, S. Gidding, L. Bartoshesky, B. Carterette, J. Ross, D. Strobino. *The independent relation of maternal prenatal factors to early childhood obesity in the offspring*. In *Obstetrics and Gynecology*, 121(1):115–121, 2013.
33. B. Carterette. *Multiple Testing in Statistical Analysis of Systems-Based Information Retrieval Experiments*. In *ACM Transactions on Information Systems* 30(1):1 (2012).
34. B. Carterette. *An Analysis of NP-Completeness in Novelty and Diversity Ranking*. In *Information Retrieval* 14(1):89 (2011).
35. B. Carterette, F. Can. *Comparing Inverted Files and Signature Files for Searching a Large Lexicon*. In *Information Processing and Management* 41(3):613–633 (2005).

Books and Monographs

36. B. Carterette. Statistical Significance Testing in IR: Theory and Practice. In preparation for publication by Morgan & Claypool in 2015.

Edited Collections

37. B. Carterette. *Information Retrieval Special Issue on Evaluation Using Test Collections* (2015).
38. B. Carterette. *SIGIR 2014 Tutorial on Statistical Significance Testing in IR* (2014).
39. B. Carterette. *ICTIR 2013 Tutorial on Statistical Significance Testing in IR* (2013).

40. B. Carterette, E. Kanoulas, E. Yilmaz. *SIGIR 2012 Tutorial on Advances in Evaluation Measures* (2012).
41. B. Carterette, E. Kanoulas, P. D. Clough, M. Sanderson. *Proceedings of ECIR 2012 Workshop: Information Retrieval Over Query Sessions* (2012).
42. E. Kanoulas, B. Carterette, P. D. Clough, M. Sanderson. *Proceedings of ECIR 2011 Workshop: Session Information Retrieval* (2011).
43. B. Carterette, E. Kanoulas, E. Yilmaz. *SIGIR 2010 Tutorial on Low-Cost Evaluation in Information Retrieval* (2010).
44. B. Carterette, F. Radlinski, P. Bennett, T. Joachims, eds. *Proceedings of SIGIR 2009 Workshop: Redundancy, Diversity, and Interdependent Document Relevance* (2009).
45. P. Bennett, B. Carterette, O. Chapelle, T. Joachims, eds. *Proceedings of SIGIR 2008 Workshop: Beyond Binary Relevance: Preferences, Diversity, and Set-Level Judgments* (2008).

Book Chapters and Contributed Articles

46. B. Carterette, E. Kanoulas, E. Yilmaz. *Evaluating Web Retrieval Effectiveness*. In *Web Search Engine Research*, Lewandowski, D. (Ed.). Emerald Group Publishing Limited 2012.
47. B. Carterette, E. Voorhees. *Overview of Information Retrieval Evaluation*. In *Current Challenges in Patent Information Retrieval*, Lupu, M.; Mayer, K.; Tait, J.; Trippe, A.J. (Eds.). Springer 2011.
48. B. Carterette. *Search Engine Metrics*. In *Encyclopedia of Database Systems*, L. Liu and M. T. Özsu, eds. 1st edition, Springer 2009.
49. B. Carterette. *Test Collections*. In *Encyclopedia of Library and Information Sciences*, M. J. Bates and M. N. Maack, eds. 3rd edition, CRC Press 2009.

Poster Papers

50. A. Bah, B. Carterette. *Rank Aggregation for Web Search Over Sessions*. In *Proceedings of the 9th Richard Tapia Conference* (2014).
51. D. Zhu, B. Carterette. *An Adaptive Evidence Weighting Method for Medical Record Search*. In *Proceedings of the 36th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2013).
52. W. Webber, P. Chandar, B. Carterette. *Document Features Predicting Assessor Disagreement*. In *Proceedings of the 36th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2013).
53. A. Bah, B. Carterette. *Using Snippets' Similarities and Several Re-rankings to Improve Diversity Ranking*. In *Proceedings of the Mid-Atlantic Colloquium on Speech, Language and Learning* (2012).
54. P. Chandar, B. Carterette. *Using PageRank to Infer User Preferences*. In *Proceedings of the 35th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2012).
55. P. Chandar, B. Carterette. *Diversification of Search Results using Webgraphs*. In *Proceedings of the 33rd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2010).
56. M. D. Smucker, J. Allan, B. Carterette. *A Comparison of Statistical Significance Tests and Small Sample Sizes for IR Evaluation*. In *Proceedings of the 32nd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2009), pp. 630–631.
57. B. Carterette, P. Bennett. *Evaluation Measures for Preference Judgments*. In *Proceedings of the 31st Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (2008), pp. 685–686.

58. B. Carterette, J. Allan. *Semiautomatic Evaluation of Retrieval Systems Using Document Similarities*. In *Proceedings of the 16th ACM International Conference on Information and Knowledge Management (CIKM)* (2007), pp. 873–876.
59. B. Carterette, J. Allan. *Research Methodology in Studies of Assessor Effort for Information Retrieval Evaluation*. In *Poster Proceedings of the 8th Conference on Large-Scale Semantic Access to Content (RIAO)* (2007).
60. B. Carterette, D. Petkova. *Learning a Ranking from Pairwise Preferences*. In *Proceedings of the 29th Annual ACM SIGIR Conference on Research and Development in Information Retrieval* (2006), pp. 629–630.
61. B. Carterette, R. Jones, W. Greiner, C. Barr. *N Semantic Classes Are Harder Than Two*. In *Poster Proceedings of the 21st International Conference on Computational Linguistics and 44th Annual Meeting of the Association for Computational Linguists (ACL/COLING)* (2006), pp. 49–56.

Workshop Papers

62. A. Bah, B. Carterette. *Using 'Model' Pseudo-Documents to Improve Searching-as-Learning and Search Over Sessions*. In *Proceedings of the IIiX 2014 Workshop on Searching as Learning*, 2014.
63. M. Zengin, B. Carterette. *User Judgments of Document Similarity*. In *Proceedings of the SIGIR 2013 Workshop on Modeling User Behavior for Evaluation*, 2013.
64. M. Dean, P. Basu, B. Carterette, C. Partridge and J. Hendler. *What to Send First? A Study of Utility in the Semantic Web*. In *Proceedings of the Joint Workshop on Large and Heterogeneous Data and Quantitative Formalization in the Semantic Web* (in conjunction with ISWC 2012).
65. A. Rao, K. Maiden, D. Ehrenthal, B. Carterette. *Predicting Baby Feeding Method from Unstructured Electronic Health Record Data*. In *Proceedings of the ACM 6th International Workshop on Data and Text Mining in Biomedical Informatics* (in conjunction with CIKM 2012).
66. D. Zhu, B. Carterette. *Combining Multi-level Evidence for Medical Record Retrieval*. In *Proceedings of the International Workshop on Smart Health and Wellbeing* (in conjunction with CIKM 2012).
67. P. Chandar, B. Carterette. *What Qualities Do Users Prefer in Diversity Rankings?* In *Proceedings of the WSDM 2012 Workshop on Diversity in Document Retrieval* (2012).
68. P. Chandar, B. Carterette. *Analysis of Various Evaluation Measures for Diversity*. In *Proceedings of the ECIR 2011 Workshop on Diversity in Document Retrieval* (2011).
69. D. Zhu, B. Carterette. *An Analysis of Assessor Behavior in Crowdsourced Preference Judgments*. In *Proceedings of SIGIR 2010 Workshop on Crowdsourcing for Search Evaluation* (2010).
70. E. Kanoulas, P. Clough, B. Carterette, M. Sanderson. *Session Track at TREC 2010*. In *Proceedings of SIGIR 2010 Workshop on Simulation of Interaction: Automated Evaluation of Interactive IR* (2010).

TREC, CLEF, and NTCIR Reports

71. B. Carterette, E. Kanoulas, P. D. Clough, M. Hall. *Overview of the TREC 2014 Session Track*. In *Proceedings of the 22nd Text Retrieval Conference (TREC)* (2014).
72. A. Bah, K. Sabhnani, M. Zengin, B. Carterette. *University of Delaware at TREC 2014*. In *Proceedings of the 22nd Text Retrieval Conference (TREC)* (2014).
73. A. Bah, B. Carterette. *UDel @ NTCIR-11 iMine Track*. In *Proceedings of the 11th NTCIR Workshop on Evaluation of Information Access Technologies* (2014).
74. A. Bah, B. Carterette. *Udel @ NTCIR-11 MobileClick Track*. In *Proceedings of the 11th NTCIR Workshop on Evaluation of Information Access Technologies* (2014).

75. B. Carterette, E. Kanoulas, A. Bah, P. D. Clough, M. Hall. *TREC 2013 Session Track Overview*. In *Proceedings of the 21st Text Retrieval Conference (TREC)* (2013).

76. A. Bah, P. Chandar, K. Sabhnani, M. Zengin, B. Carterette. University of Delaware at TREC 2013. In *Proceedings of the 22nd Text Retrieval Conference (TREC)* (2013).

77. B. Carterette, E. Kanoulas, P. D. Clough, M. Sanderson. *TREC 2012 Session Track Overview*. In *Proceedings of the 21st Text Retrieval Conference (TREC)* (2012).

78. D. Zhu, B. Carterette. *Exploring Evidence Aggregation Methods and External Expansion for Medical Record Search*. In *Proceedings of the 21st Text Retrieval Conference (TREC)* (2012).

79. A. Bah, P. Chandar, N. Kumar, A. Rao, B. Carterette. *UDel (Carterette) at TREC 2012*. In *Proceedings of the 21st Text Retrieval Conference (TREC)* (2012).

80. B. Carterette, E. Kanoulas, P. D. Clough, M. Sanderson. *TREC 2011 Session Track Overview*. In *Proceedings of the 20th Text Retrieval Conference (TREC)* (2011).

81. B. Carterette, P. Chandar. *Implicit Feedback and Document Filtering for IR Over Query Sessions*. In *Proceedings of the 20th Text Retrieval Conference (TREC)* (2011).

82. D. Zhu, B. Carterette. *Using Multiple External Collections for Query Expansion*. In *Proceedings of the 20th Text Retrieval Conference (TREC)* (2011).

83. B. Carterette, D. Zhu, A. Rao, N. Kumar. *Simple Rank-Based Filtering for Microblog Retrieval: Implications for Evaluation and Test Collections*. In *Proceedings of the 20th Text Retrieval Conference (TREC)* (2011).

84. B. Carterette, P. Chandar. *Sessions, Diversity, and Ad Hoc Retrieval*. In *Proceedings of the 19th Text Retrieval Conference (TREC)* (2010).

85. E. Kanoulas, B. Carterette, P. D. Clough, M. Sanderson. *TREC 2010 Session Track Overview*. In *Proceedings of the 19th Text Retrieval Conference (TREC)* (2010).

86. B. Carterette, V. Pavlu, H. Fang, E. Kanoulas. *Million Query Track 2009 Overview*. In *Proceedings of the 18th Text Retrieval Conference (TREC)* (2009).

87. P. Chandar, A. Kailasam, D. Muppaneni, L. Thota, B. Carterette. *Ad Hoc and Diversity Retrieval at the University of Delaware*. In *Proceedings of the 18th Text Retrieval Conference (TREC)* (2009).

88. B. Carterette, P. Chandar, A. Kailasam, D. Muppaneni, L. Thota. *Minimal Test Collections for Relevance Feedback*. In *Proceedings of the 18th Text Retrieval Conference (TREC)* (2009).

89. J. Allan, J. Aslam, B. Carterette, V. Pavlu, E. Kanoulas. *Million Query Track 2008 Overview*. In *Proceedings of the 17th Text Retrieval Conference (TREC)* (2008).

90. J. Allan, B. Carterette, J. Aslam, V. Pavlu, B. Dachev, E. Kanoulas *Million Query Track 2007 Overview*. In *Proceedings of the 16th Text Retrieval Conference (TREC)* (2007).

Other Reports and Unreferreed Papers

91. B. Carterette, E. Kanoulas, P. D. Clough, M. Sanderson. *Report on the ECIR 2011 Workshop on Information Retrieval Over Query Sessions*. In *SIGIR Forum*, 45(2):76–80, December 2011.

92. F. Radlinski, P. Bennett, B. Carterette, and T. Joachims. *Redundancy, Diversity, and Interdependent Document Relevance*. In *SIGIR Forum*, 43(2):46–52, December 2009.

93. P. Bennett, B. Carterette, O. Chapelle, and T. Joachims. *Beyond Binary Relevance: Preferences, Diversity, and Set-Level Judgments*. In *SIGIR Forum*, 42(2):53–58, December 2008.

94. B. Carterette. *Dissertation Abstract: Low-Cost and Robust Evaluation of Information Retrieval Systems*. *SIGIR Forum*, 42(2), December 2008.

95. B. Carterette, P. Bennett, O. Chapelle. *A Test Collection of Preferences*. In *Proceedings of SIGIR 2008 Workshop: Beyond Binary Relevance: Preferences, Diversity, and Set-Level Judgments* (2008), pp. 31–34.

96. B. Carterette, J. Allan, W. B. Croft. *Ranking Document Retrieval Systems with BLEU*. CIIR Tech Report (2003).

Notable Presentations

Invited

User Variability and Information Retrieval Evaluation. Invited talk to the SIGIR 2013 workshop on Modeling User Behavior for Information Retrieval Evaluation, August 2013.

Session Track Report. Invited “field view” talk to the NSF Workshop on Task-Based Information Search Systems at the University of North Carolina, March 2013.

Measuring the Utility of Search Engines. Invited talk to University of Pittsburgh School of Information, March 2012.

Retrieving and Mining Medical Records. Invited talk to CBCB Bioinformatics Seminar (University of Delaware), November 2011.

System Effectiveness, User Models, and User Utility: a Conceptual Framework for Investigation. Invited talk to Yandex (Moscow), August 2011.

Measuring the Utility of Search Engines. Invited talk to CMU School of Computer Science Language Technologies Institute, October 2010.

User Studies and System Evaluation in Information Retrieval. Invited talk at BioCreative III workshop, September 2010.

Low-Cost and Robust Evaluation of Information Retrieval Systems. Invited talk to ELEG662 (University of Delaware), September 2009.

Here or There: Preference Judgments for Relevance. Invited talk to Yahoo! Research, Santa Clara, California, December 2007.

Minimal Test Collections for Retrieval Evaluation. Invited talk for Machine Learning and Friends Lunch, University of Massachusetts Amherst, 14 September 2006.

By Proposal

Statistical Significance Testing in IR. Tutorial at SIGIR 2014, July 2014.

Statistical Significance Testing in IR. Tutorial at ICTIR 2013, October 2013.

Advances in IR Evaluation. Tutorial at SIGIR 2012 with E. Kanoulas and E. Yilmaz, August 2012.

Advances in IR Evaluation. Course at RuSSIR summer school, St. Petersburg, with E. Kanoulas and E. Yilmaz, August 2011.

Low-Cost Test Collections. Tutorial at SIGIR 2010 with E. Kanoulas and E. Yilmaz, July 2010.

Courses

CISC220 “Data Structures in C++”, University of Delaware, Fall 2013, Fall 2012, Spring 2012.

CISC437/637 “Database Systems”, University of Delaware, Spring 2015, Spring 2014, Spring 2013, Spring 2012, Spring 2011, Spring 2010.

CISC889 “Topics in Information Retrieval”, University of Delaware, Fall 2014, Spring 2013, Fall 2011, Fall 2008.

CISC889 “Empirical Methods for Computer Science”, University of Delaware, Spring 2014, Spring 2010.

CISC481/681 “Artificial Intelligence”, University of Delaware, Fall 2009.

CISC489/689 “Information Retrieval”, University of Delaware, Spring 2009.

Students Advised

Research Assistants

PhDs graduated:

1. Praveen Chandar, Summer 2014 (now a postdoctoral researcher at Columbia University)
2. Dongqing Zhu, Fall 2014 (now a research engineer at Microsoft Bing)

Current lab: Ashraf Bah, Mustafa Zengin, Karankumar Sabhnani, Yuqi Kong, Li Ren, Mohammad Alsulmi.

PhD: Mustafa Zengin (2012–present), Ashraf Bah (2013–present), Karankumar Sabhnani (2013–present), Mohammad Alsulmi (2014–present).

Masters: Ashwani Rao (2011–2014; thesis), Naveen Kumar (2011–2012; thesis), Bo Xu (2010–2011), Lekha Thota (2009–2010; thesis), Aparna Kailasam (2009–2010; thesis).

Undergraduate: Nathan Florez (2011–2012), Steven Alper (2011), Austin Cory Bart (2009–2010).

Dissertation Committee

Hao Wu (PhD; UD Dept. of Electrical and Computer Engineering)

Irene Monatas (PhD; UD Dept. of Computer and Information Sciences)

Ivanka Li (PhD; UD Dept. of Computer and Information Sciences)

Wei (Wayne) Zheng (PhD; UD Dept. of Electrical and Computer Engineering)

Stefan Savev (PhD; Northeastern University College of Computer Science)

Peng Wu (PhD; UD Dept. of Computer and Information Sciences)

Catalina Oana Tudor (PhD; UD Dept. of Computer and Information Sciences)

Awards and Honors

Nominated for UD Excellence in Teaching Award, Spring 2014

ACM Computing Reviews “Notable Article of 2012” for *Multiple Testing in Statistical Analysis of Systems-Based Information Retrieval Experiments*

Best Student Paper Award, ECIR 2011, for *A Methodology for Evaluating Aggregated Search*.

Best Paper Award, ICTIR 2009, for *An Analysis of NP-Completeness in Novelty and Diversity Ranking*.

Microsoft Research Graduate Fellow, 2007–2008.

Best Paper Award, SIGIR 2006, for *Minimal Test Collections for Retrieval Evaluation*.

Undergraduate Summer Scholar Award, Miami University, 1999.

Research Grants

UDRF Strategic Initiative. PI B. Carterette, co-PI Cathy Wu. *Intelligent Joint Search in Health and Biomedical Science Databases*, 12/2009–6/2011, \$45,000.

U.S. Army. PI David Sincoskie, co-PI B. Carterette with many others. *Army Research Lab (ARL) Network Science (NS) Collaborative Technology Alliance (CTA) Interdisciplinary Research Center (IRC)*, 9/2009–open (subject to yearly competitive renewal), \$2,017,808 (UD Dept of CIS share about \$300,000).

NSF IIS-1017026. PI B. Carterette, co-PI Hui Fang. *Models and Measures for Novel and Diverse Search Results*, 9/2010–8/2013, \$495,968.

NIH/NLM 1 G08 LM010720-01. PI Cathy Wu, co-PIs B. Carterette, Keith Decker, Vijay Shanker. *Linking Text Mining and Data Mining for Biomedical Knowledge Discovery*, 9/2010–8/2013, \$450,000.

UDRF. PI B. Carterette. *Measuring the Utility of a Search Engine Over a Sequence of Queries*, 2009–2011, \$35,000.

Delaware Health Sciences Alliance. PI Deborah Ehrenthal, co-PI B. Carterette. *Utilizing statewide information systems to study outcomes for infants with birth defects*, 9/2010–1/2013, \$75,000.

NSF CAREER IIS-1350799. PI B. Carterette. *Measuring Search Engines' Ability to Help Users Complete Tasks*, 2014–2019, \$500,000.

Google Faculty Research Award. PI B. Carterette. *User Simulation for Evaluating Search Over Sessions*, 2015, \$36,310.

Service

Department

Organizer of SIG-NLP, Fall 2011, Spring 2014.

Organizer of Distinguished Lecture Series, 2011–2012.

Public Relations Committee, 2011–2012.

Graduate Program Committee, 2010–2011, 2012.

Graduate Admissions and Recruiting Committee, 2008–2010, 2012–2015.

Research Community

General co-char, ACM SIGIR International Conference on the Theory of Information Retrieval (ICTIR), 2016.

General co-chair, 7th ACM International Conference on Web Search and Data Mining (WSDM), 2014.

Editor, SIGIR Forum (annual December issue), 2014–present.

Editorial board, Information Processing and Management, 2014–present.

Editorial board, Foundations and Trends in Information Retrieval, 2013–present.

Editorial board, Information Retrieval Journal, 2011–present.

Short papers co-chair, 40th ACM International Conference on Research and Development in Information Retrieval (SIGIR), 2017.

Short papers co-chair, 39th ACM International Conference on Research and Development in Information Retrieval (SIGIR), 2016.

Senior program committee member, ACM Annual International Conference on Research and Development in Information Retrieval (SIGIR), 2011–2013, 2015.

Senior program committee member, ACM International Conference on Information and Knowledge Management (CIKM), 2012–2013.

Senior program committee member, Asia Information Retrieval Symposium (AIRS), 2013.

Senior program committee member, Text Retrieval Conference (TREC), 2012–present.

Acting associate editor, ACM Transaction on Information Systems (TOIS), 2011.

Co-coordinator of 6 TREC tracks: Tasks track (2015), Session track (2010–2014), Million Query track (2009).

Co-organizer, Meeting of the DC-Area Information Retrieval Experts (DIRE), Spring 2012.

Co-organizer of 5 workshops: ECIR 2012 workshop *Session Information Retrieval*, ECIR 2011 workshop *Session Information Retrieval*, SIGIR 2010 workshop *Next-Generation Test Collections*, SIGIR 2009 workshop *Beyond Independent Relevance*, SIGIR 2008 workshop *Beyond Binary Relevance: Preferences, Diversity, and Set-Level Judgments*.

NSF panels: CISE (2009, 2011, 2012, 2014), CAREER (ad hoc, 2008).

Best Paper Award committee, SIGIR 2014.

Program committee member (highly refereed conferences): SIGIR (2007–2010), ECIR (2008, 2011), WSDM (2011), ACL (2010), CIKM (2011), WWW (2011), ACL/HLT (2011), ICML (2010).

Program committee member (other conferences): AIRS (2012), EVIA (2008, 2010, 2013), BIBE (2010), COLING (2010), AIRS (2010), CLEF (2011), SPIRE (2008), InfoScale (2007, 2008).

Program committee member (workshops): EACL Student Research Workshop (2009), SIGIR Workshops on Crowdsourcing for Search Evaluation (2010), Interactive Information Retrieval (2010), WSDM Workshop on Crowdsourcing for Search Evaluation (2011), ACL/HLT Student Session (2011), SIGIR Workshops on Enriching Information Retrieval (2011) and Crowdsourcing Information Retrieval (2011), NAACL Student Research Workshop and Doctoral Consortium (2012).

Program committee member, Information Retrieval Special Issue on Novelty and Diversity.

Program committee member, SIGIR 2012 Posters, CIKM 2012 Posters, CIKM 2012 Demos, ECIR2013 Workshops, ECIR 2011 Tutorials, WSDM 2012 Tutorials.

Reviewer for MIT Press, 2009.

Reviewer for *IEEE Transactions on Knowledge and Data Engineering*.

Reviewer for *IEEE Transactions on Neural Networks*.

Reviewer for *Information Processing & Management*.

Reviewer for the *Journal of the American Society for Information Science and Technology*.

Reviewer for *ACM Transactions on the Web*.

Member of Association for Computing Machinery and the ACM Special Interest Group on Information Retrieval.