

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

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|---|-------------------------------------|
| Assistant Professor | 2008–present |
| Department of Computer & Information Sciences | University of Delaware, Newark, DE |
| Research Assistant | 2003–2008 |
| Advisor: Prof. James Allan | University of Massachusetts Amherst |
| Research Intern | Summer 2007 |
| Supervisor: Dr. Susan T. Dumais | Microsoft Research, Redmond, WA |
| Research Intern | Summer 2005 & 2006 |
| Supervisor: Dr. Rosie Jones | Yahoo!, Burbank, CA |

Publications

Conference Papers

- 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), to appear.
- 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.
- 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.
- 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.
- 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.
- 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.

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.

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.

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.

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

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).

Edited Collections

P. Bennett, B. Carterette, O. Chapelle, T. Joachims, eds. *Proceedings of SIGIR 2008 Workshop: Beyond Binary Relevance: Preferences, Diversity, and Set-Level Judgments* (2008).

Contributed Articles

B. Carterette. *Search Engine Metrics*. To appear in *Encyclopedia of Database Systems*, Springer 2008 (to appear).

B. Carterette. *Test Collections*. To appear in *Encyclopedia of Library and Information Sciences*, Dekker 2008 (to appear).

Poster Papers

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.

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.

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 (RIA0)* (2007).

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.

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.

Reports and Unreferreed Papers

P. Bennett, B. Carterette, O. Chapelle, and T. Joachims. *Beyond Binary Relevance: Preferences, Diversity, and Set-Level Judgments*. To appear in *SIGIR Forum* (2009).

B. Carterette. *Dissertation Abstract: Low-Cost and Robust Evaluation of Information Retrieval Systems*. To appear in *SIGIR Forum* (2009).

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

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.

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).

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

Presentations

A Test Collection of Preferences. SIGIR 2008 Workshops, Singapore, Singapore, July 2008.

Evaluation Over Thousands of Queries. SIGIR 2008, Singapore, Singapore, July 2008.

Here or There: Preference Judgments for Relevance. ECIR 2008, Glasgow, Scotland, March 2008.

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

Hypothesis Testing with Incomplete Relevance Judgments. CIKM 2007, Lisbon, Portugal, November 2007.

Robust Test Collections for Retrieval Evaluation. SIGIR 2007, Amsterdam, Netherlands, July 2007.

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

Minimal Test Collections for Retrieval Evaluation. SIGIR 2006, Seattle, WA, July 2006.

Incremental Test Collections. CIKM 2005, Bremen, Germany, November 2005.

When Will Information Retrieval Be “Good Enough”? SIGIR 2005, Salvador, Brazil, July 2005.

Courses

CISC889-010 “Topics in Information Retrieval”, University of Delaware, Fall 2008.

CISC489/689-010 “Information Retrieval”, University of Delaware, Spring 2009.

Students

Advisees

Praveen Chandar, 2009–present (MS).

Awards and Honors

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.

Service

Coordinator, TREC 2009 Million Query Track.

Co-organizer, SIGIR 2008 workshop *Beyond Binary Relevance: Preferences, Diversity, and Set-Level Judgments*.

Program committee member, SIGIR 2009.

Program committee member, Student Research Workshop, EACL 2009.

Program committee member, EVIA 2008.

Program committee member, SIGIR 2008.

Program committee member, ECIR 2008.

Program committee member, SIGIR 2007.

NSF CAREER reviewer, 2008.

Reviewer for *Information Processing & Management*.

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

Reviewer for *ACM Transactions on Information Systems*.

Reviewer for *ACM Transactions on the Web*.

Reviewer for *Information Retrieval*.

Reviewer for SPIRE 2008.

Reviewer for InfoScale 2007 and 2008.

Reviewer for *Advances in Information Systems* 2004 and 2006.

Member of Association for Computing Machinery.

Member of ACM Special Interest Group on Information Retrieval.