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Research Interests	Natural Language Processing, Machine Learning, Artificial Intelligence	
Education	University of Washington Ph.D. Computer Science and Engineering, 2008 Dissertation Title: <i>Redundancy in Web-scale Information Extraction: Probabilistic Model and Experimental Results</i> M.S. Computer Science and Engineering, 2004	September 2002 – December 2008
	Case Western Reserve University B.S./M.S. in Computer Science Minors in Mathematics and Economics	August 1996 – May 2000
Professional Experience	Northwestern University , Assistant Professor Department of Electrical Engineering and Computer Science	September 2008 – present
	University of Washington , Research Assistant <i>Advisor: Oren Etzioni</i>	June 2003 – September 2008
	Microsoft Corporation , Research Intern <i>Mentor: Susan Dumais Manager: Eric Horvitz</i>	March 2006 – July 2006
	Intel Corporation , Internet Software Engineer	October 2000 – September 2002
	Case Western Reserve University , Research Assistant <i>Advisor: Randall D. Beer</i>	October 1998 – September 2000
Awards	Microsoft New Faculty Fellowship, 2010 Microsoft Research PhD Fellowship sponsored by Microsoft Live Labs, 2006 IJCAI Distinguished Paper Award, 2005 NSF Graduate Fellowship, 2001 NDSEG Graduate Fellowship (awarded), 2001 United States Presidential Scholar, 1996 Albert W. Smith full-tuition scholarship, 1996	
Teaching Experience	Northwestern University , Assistant Professor Machine Learning (EECS 349), Fall 2008, Fall 2010 Intro to Artificial Intelligence (EECS 348), Spring 2010 Probabilistic Graphical Models (EECS 395/495), Winter 2010 Web Information Retrieval and Extraction (EECS 395/495), Spring 2009	

Professional Service

Program Committees:

ACL-HLT 2011, WWW 2011, AAAI 2010-2011, IJCAI 2009, EMNLP 2010, COLING 2010, ACL 2010, ICML 2010

Reviewer for:

IJCAI 2011

AI Journal, 2008-2010

HLT/NAACL, 2009-2010

Transactions on Knowledge and Data Engineering, 2010

VLDB Journal, 2009-2010

National Center for Women & IT Aspirations in Computing, 2009-2010

NSF Division of Information and Intelligent Systems, 2009

Journal of Artificial Intelligence Research, 2008-2009

User Modeling Conference, 2007

Data Mining and Knowledge Discovery Journal, 2007

AAAI Conference, 2005

ACM Transactions on Internet Technology, 2004

University Service

McCormick School of Engineering Freshman Advisor, 2008-2011

EECS Undergraduate Curriculum Committee, 2009-2011

Publications

1. Doug Downey, Oren Etzioni, Stephen Soderland. Analysis of a Probabilistic Model of Redundancy in Unsupervised Information Extraction. *Artificial Intelligence*, 174(11): 726-748, 2010.
2. Arun Ahuja and Doug Downey. Improved Extraction Assessment through Better Language Models. *Proceedings of Human Language Technologies: The 11th Annual Conference of the North American Chapter of the Association for Computational Linguistics (HLT-NAACL)*, 2010.
3. Doug Downey, Arun Ahuja, Mike Anderson. Learning to Integrate Relational Databases with Wikipedia. *Proceedings of the IJCAI-09 Workshop on User-Contributed Knowledge and Artificial Intelligence (WIKIAI)*, 2009.
4. Doug Downey, Oren Etzioni. Look Ma, No Hands: Analyzing the Monotonic Feature Abstraction for Text Classification. In D. Koller, Y. Bengio, D. Schuurmans and L. Bottou (Eds.), *Advances in Neural Information Processing Systems (NIPS) 21*, 2008.
5. Doug Downey, Susan Dumais, Dan Liebling and Eric Horvitz. Understanding the relationship between searchers' queries and information goals. *Proceedings of the 17th Conference on Information and Knowledge Management (CIKM)*, 2008
6. Alan Ritter, Doug Downey, Stephen Soderland, and Oren Etzioni. It's a Contradiction -- No, It's Not: A Case Study using Functional Relations. *Proceedings of the 2008 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2008
7. Doug Downey, Stefan Schoenmackers, Oren Etzioni. Sparse Information Extraction: Unsupervised Language Models to the Rescue. *Proceedings of the 45th Annual Meeting of the Association of Computational Linguistics (ACL)*, 2007.
8. Doug Downey, Matthew Broadhead, Oren Etzioni. Locating Complex Named Entities in Web Text. *Proceedings of the Twentieth International Joint Conference on Artificial Intelligence (IJCAI)*, 2007.
9. Doug Downey, Susan Dumais, Eric Horvitz. Models of Searching and Browsing: Languages, Studies, and Applications. *Proceedings of the*

Twentieth International Joint Conference on Artificial Intelligence (IJCAI), 2007.

10. Doug Downey, Susan Dumais, and Eric Horvitz. Heads and Tails: Studies of Web Search with Common and Rare Queries. *Proceedings of the 30th Annual International ACM Conference on Research and Development in Information Retrieval (SIGIR), 2007.*
11. Doug Downey, Oren Etzioni, and Stephen Soderland. A Probabilistic Model of Redundancy in Information Extraction. *Proceedings of the Nineteenth International Joint Conference on Artificial Intelligence (IJCAI), 2005. **Distinguished Paper Award.***
12. Michael J. Cafarella, Doug Downey, Oren Etzioni, Stephen Soderland. KnowItNow: Fast, Scalable Information Extraction from the Web. *Proceedings of the 2005 Conference on Empirical Methods in Natural Language Processing (EMNLP), 2005.*
13. Oren Etzioni, Michael Cafarella, Doug Downey, Ana-Maria Popescu, Tal Shaked, Stephen Soderland, Daniel S. Weld, and Alexander Yates. Unsupervised Named-Entity Extraction from the Web: An Experimental Study. *Artificial Intelligence* 165:91-134, 2005.
14. Doug Downey, Oren Etzioni, Daniel S. Weld, and Stephen Soderland. Learning Text Patterns for Web Information Extraction and Assessment. *Proceedings of the AAI-04 Workshop on Adaptive Text Extraction and Mining, 2004.*
15. Oren Etzioni, Michael Cafarella, Doug Downey, Ana-Maria Popescu, Tal Shaked, Stephen Soderland, Daniel S. Weld, and Alexander Yates. Methods for Domain-Independent Information Extraction from the Web: An Experimental Comparison. *Proceedings of the Nineteenth National Conference on Artificial Intelligence (AAAI), 2004.*
16. Oren Etzioni, Michael Cafarella, Doug Downey, Stanley Kok, Ana-Maria Popescu, Tal Shaked, Stephen Soderland, Daniel S. Weld, and Alexander Yates. Web-scale Information Extraction in KnowItAll. *Proceedings of the Thirteenth International World Wide Web Conference (WWW), 2004.*
17. Andrew C. Slocum, Douglas C. Downey, Randall D. Beer. Further Experiments in the Evolution of Minimally Cognitive Behavior: From Perceiving Affordances to Selective Attention. *Proceedings of the Sixth International Conference on the Simulation of Adaptive Behavior, 2000.*