

Smaranda Muresan
- CURRICULUM VITAE -

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RESEARCH INTERESTS

Natural Language Processing (language learning, computational semantics, machine translation), **Machine Learning** (relational learning, text and data mining), **Digital Libraries**

EDUCATION

1999 - 2006 Ph.D. in Computer Science
 Columbia University, New York, NY
 Dissertation: Learning Constraint-based Grammars from Representative Examples: Theory and Applications
 Advisors: Dr. Owen Rambow and Dr. Judith L. Klavans

 M.Sc. in Computer Science, *October 2002*
 Columbia University, New York, NY

1994-1999 B.Sc. in Computer Science and Engineering, *Cum Laude*
 Thesis: “Automatic Logic Program Generation using Mode-Direct Inverse Entailment”
 Technical University of Cluj-Napoca, Romania

PROFESSIONAL EMPLOYMENT

Fall, 2008 - Assistant Professor, Library and Information Science Department, Rutgers University, New Brunswick, NJ.

2006 - 2008 Postdoctoral Research Associate, University of Maryland Institute for Advanced Computer Studies, College Park, MD

1999 - 2006 Graduate Research Assistant, Department of Computer Science, Columbia University, New York, NY

Summer 2000 Research Intern, Bell Labs, Lucent Technologies, Murray Hill, NJ

1997 - 1999 Undergraduate Research Assistant, Technical University of Cluj-Napoca, Romania

AWARDS

2004	AAAI/SIGART Doctoral Consortium Scholarship
Spring 2001	Extraordinary Teaching Assistant Award School of Engineering and Applied Sciences, Columbia University, New York, NY
1998-1999	Honor Fellowship Faculty of Automation and Computer Science, Technical Univ. of Cluj-Napoca, Romania
1996	Mention (4th place) at the Undergraduate National Mathematics Olympiad, Romania
1994-1998	Merit Fellowship Department of Computer Science, Technical University of Cluj-Napoca, Romania

PROFESSIONAL ACTIVITIES

Co-organizer	TextGraphs-4: Graph-based Methods for Natural Language Processing. Workshop at the Association for Computational Linguistics Conference (ACL/IJCNLP 2009)
Progr. Comm.	The Association for Machine Translation Conference (AMTA 2008) Student Workshop, Hawaii
Progr. Comm.	FLAIRS 2008 Special Track on Applied Natural Language Processing
Progr. Comm.	FLAIRS 2006 Trends in Natural Language Processing
Progr. Comm.	The 2nd International Workshop on Data Engineering in E-Commerce and Services (DEECS 2006)
Reviewer	ACM Transaction on Information Systems Journal
Reviewer	Computational Intelligence Journal
Reviewer	The European Association for Computational Linguistics Conference (EACL 2009)
Reviewer	The Association for Computational Linguistics Conference (ACL 2008)
Reviewer	The Association for Advancement of Artificial Intelligence (AAAI-06) "Member Posters" Track
Reviewer	The International Conference on Computational Linguistics (COLING 2004)
Reviewer	"Dynamical Grammar: Minimalism, Acquisition and Change" by P. Culicover and A. Nowak. http://linguistlist.org/issues/15/15-2358.html#1

GRANTS

Philip Resnik(PI) and Smaranda Muresan (Co-PI). "SGER: Exploiting Alternative Packagings of Source Meaning in Statistical Machine Translation". (NSF SGER award, September 2008 - August 2010)

PATENTS

2003	<i>System and Method of Generating Dictionary Entries</i> . Judith Klavans and Smaranda Muresan, Columbia University, New York, NY. Serial No 398,535.
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INVITED TALKS

- 10/02/2008 *A Computational Model for Language Learning and Understanding*. The Rutgers University Center for Cognitive Science, Rutgers University.
- 02/26/2008 *Learning Constraint-Based Grammars from Representative Data*. The Center for Language and Speech Processing, Johns Hopkins University.
- 03/01/2006 *Inducing Constraint-based Grammars using a Domain Ontology*. Computational Linguistics and Information Processing Laboratory (CLIP) at the University of Maryland Institute for Advanced Computer Studies (UMIACS).
- 10/22/2004 *Learning Constraint-based Grammars using a Small Semantic Treebank*. Computational Linguistics Group, Department of Computer Science, University of Toronto.
- 10/30/2000 *DEFINDER: Extracting Definitions of Medical Terms from On-line Articles* IBM Open House, Watson Research Center, Hawthorne, NY.

REFEREED PUBLICATIONS

- [1] Smaranda Muresan (2008). “Learning to Map Text to Graph-based Meaning Representations via Grammar Induction”. *Proceedings of the COLING 2008 Workshop TextGraphs-3: Graph-based Algorithms for Natural Language Processing*.
- [2] Christopher Dyer, Smaranda Muresan and Philip Resnik (2008). “Generalizing Word Lattice Translation”. *Proceedings of the Association for Computational Linguistics, ACL 2008*.
- [3] Smaranda Muresan and Owen Rambow (2007). “Grammar Approximation by Representative Sublanguage: A New Model for Language Learning”. *Proceedings of the Association for Computational Linguistics, ACL 2007, Prague, Czech Republic*.
- [4] Smaranda Muresan (2004). “Inducing Constraint-based Grammars using a Domain Ontology”. *Proceedings of the Ninth AAI/SIGART Doctoral Consortium*.
- [5] Smaranda Muresan, Tudor Muresan, and Judith Klavans (2004). “Inducing Constraint-based Grammars from a Small Semantic Treebank”. *AAAI Spring Symposium on Language Learning: An Interdisciplinary Perspective*, Stanford University.
- [6] Smaranda Muresan, Samuel D. Popper, Peter T. Davis, and Judith L. Klavans (2003). “Building a Terminological Database from Heterogeneous Definitional Sources”. *Proceedings of the National Conference on Digital Government Research*, Boston, Massachusetts.
- [7] Smaranda Muresan and Judith L. Klavans (2002). “A Method for Automatically Building and Evaluating Dictionary Resources”. *Proceedings of the Language Resources and Evaluation Conference (LREC 2002)*.
- [8] Smaranda Muresan, Tudor Muresan, and Rodica Potolea (2002). “Data Flow Coherence Constraints for Pruning the Search Space in ILP Tools”. *International Journal of Artificial Intelligence Tools*, volume 11(2), 2002.
- [9] Judith Klavans and Smaranda Muresan (2001). “Evaluation of DEFINDER: A System to Mine Definitions from Consumer-oriented Medical Text”. *Proceedings of The ACM+IEEE Joint Conference on Digital Libraries (JCDL 2001)*.

- [10] Smaranda Muresan, Tudor Muresan, and Rodica Potolea (2001). “Data flow criteria in ILP tools”. *Proceedings of IEEE 13th International Conference on Tools with Artificial Intelligence (ICTAI 2001)*.
- [11] Judith Klavans and Smaranda Muresan (2001). “Evaluation of the DEFINDER System for Fully Automatic Glossary Construction”. *Proceedings of the American Medical Informatics Association Symposium (AMIA 2001)*.
- [12] Smaranda Muresan, Evelyne Tzoukermann, and Judith Klavans (2001). “Combining Linguistic and Machine Learning Techniques for Email Summarization”. *Proceedings of the Conference on Natural Language Learning (CoNLL-2001), held as a Workshop at the 39th Annual meeting of the Association for Computational Linguistics (ACL-2001)*.
- [13] Judith Klavans and Smaranda Muresan (2000). “DEFINDER: Rule-based Methods for the Extraction of Medical Terminology and their Associated Definitions from On-line Text”. *Proceedings of the American Medical Informatics Association Symposium (AMIA 2000)*.
- [14] Smaranda Muresan, Tudor Muresan, and Rodica Potolea (1999). “An Automatic Logic Program Generation Kernel”. *Scientific Journal of Automation, Computers and Applied Mathematics (ACAM), Technical University of Cluj-Napoca*, 8(1).
- [15] Tudor Muresan, Rodica Potolea, and Smaranda Muresan (1998). “Amalgamating CCP with Prolog”. *Scientific Journal of Polytechnic University, Timisoara*, 43(4).

TECHNICAL REPORTS

- [16] Smaranda Muresan, Tudor Muresan, and Judith Klavans (2005). “Lexicalized Well-Founded Grammars: Learnability and Merging”. *Technical Report CUCS-027-05, Columbia University, New York, NY*.
- [17] Smaranda Muresan (2005). “Parsing Preserving Techniques in Grammar Induction”. *Technical Report CUCS-032-05, Columbia University, New York, NY*.

TEACHING EXPERIENCE

- Fall 2008 **Instructor**, 17:610:550:01 Information Technologies for Libraries and Information Agencies, MLIS program, Rutgers University.
- Spring 2007 **Guest lecture** on “Graph-based methods in IR and NLP”, part of the graduate course *Computational Linguistics II*, University of Maryland.
- Fall 2006 **Guest lectures** on “Context-Free Grammars” and “Features and Unification”, part of the graduate course *Computational Linguistics I*, University of Maryland.
- Spring 2001 **Head Teaching Assistant**, Columbia University, New York.

OTHER EDUCATIONAL ACTIVITIES

- 2002-2003 **Supervised a high school student** from Bergen County Academies for his Senior Experience Program. Topic: Creation of a terminological database for the medical domain.
- Fall 2002 **Advised an undergraduate student** for a research project on medical ontologies (coverage, compatibility between ontologies).

UNIVERSITY SERVICE

Fall 2008 - PhD Admission Committee, Library and Information Science Department, Rutgers University

1999-2002 M.Sc. Admission Committee, Columbia University, New York

SOCIETY MEMBERSHIPS

AAAI, ACL, AIS, and ACL special interest groups: SIGSEM (computational semantics), SIGNLL (natural language learning), MOL (mathematics of language).