

# VLADIMIR A. EIDELMAN

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## EDUCATION

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**University of Maryland**, College Park, MD 2008-Present  
Ph.D. Student in Computer Science  
Advisors: Philip Resnik and Mary P. Harper

**University of Maryland**, College Park, MD 2008-2010  
M.S. in Computer Science, GPA: 3.80

**Columbia University**, New York, NY 2004-2008  
B.S. in Computer Science, Minor: Philosophy, GPA: 3.84  
*Magna Cum Laude*  
Advisor: Kathleen R. McKeown

## RESEARCH INTERESTS

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Natural Language Processing, Machine Learning, Statistical Machine Translation, Artificial Intelligence

## HONORS AND AWARDS

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**National Science Foundation Graduate Research Fellowship** 2010  
**National Defense Science and Engineering Graduate Fellowship** 2010  
**John D. Gannon Research Award** – Computer Science, University of Maryland 2009  
**Block Grant Fellowship** – Computer Science, University of Maryland 2008  
**Theodore R. Bashkow Award** – Computer Science, Columbia University 2008  
**Dean's List** – Columbia University 2004–2007  
**Comcast Leaders and Achievers Scholarship** 2004  
**Maryland Governor's Merit Scholastic Award** 2004  
**Maryland Distinguished Scholar Semifinalist** 2004  
**Valedictorian** – Long Reach High School 2004

## RESEARCH EXPERIENCE

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**University of Maryland**, College Park, MD 07/2008-Present  
*Graduate Research Assistant, Laboratory for Computational Linguistics and Information Processing at the Institute for Advanced Computer Studies and Department of Computer Science*

**Johns Hopkins University**, Baltimore, MD 06/2010-08/2010  
*Graduate Research Assistant, Center for Language & Speech Processing, Summer Workshop on Models of Synchronous Grammar Induction for SMT*

**The Johns Hopkins University Applied Physics Laboratory**, Laurel, MD 06/2008-08/2008  
*Applied Information Sciences Department Intern*

- Contributed to developing a measurement agent for runtime software integrity verification

**Columbia University**, New York, NY 01/2007-01/2008  
*Research Assistant, Natural Language Processing Group*

- Created algorithm for temporal resolution exploiting article structure and temporal references in text
- Implemented module for determining when events in news articles occurred
- Developed machine learning approach to assign activity times to events in news

**Johns Hopkins University**, Baltimore, MD 05/2007-08/2007  
*Research Assistant, Center for Language & Speech Processing, Summer Workshop on Exploiting Lexical and Encyclopedic Resources For Entity Disambiguation*

- Contributed to the development of BART, the Baltimore Area Resolution Toolkit, a machine-learning based toolkit for coreference resolution
- Developed methods which automatically compute compatibility between prenominal modifiers based on outside lexical and encyclopedic knowledge

**Towson University**, Towson, MD 06/2006-08/2006  
*National Science Foundation Undergraduate Research Fellow*

- Explored different statistical models for controlling agent behavior
- Developed an empirical extension of the Interactivist-Expectative Theory of Agency and Learning model using a neural network computational model

## TEACHING EXPERIENCE

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**University of Maryland**, College Park, MD Spring 2011  
*Teaching Assistant, Department of Computer Science, Computational Linguistics II*

- Graded homework assignments and exams
- Designed and presented lecture on Maximum Entropy modeling and CRFs

## WORK EXPERIENCE

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**Technology Instruction Corp.**, Bethesda, MD 06/05-08/05  
*Computer Programming Instructor*

- Educated students in AI concepts for game programming in MW Logo, VB, and C++
- Guided students in creating final project in chosen technical language

**National Security Agency**, Linthicum, MD Summer 03/04  
*NSA Gifted and Talented Program Intern*

- Experimented with a variety of technology related security topics using software in Unix and Windows environments
- Created and implemented an Intrusion Detection System model

**Honeywell TSI**, Columbia, MD 09/03-01/04  
*Datalynx Programming Intern*

- Developed software for Windows/Unix environments to process and visualize data from satellite transmissions

## REFEREED CONFERENCE AND WORKSHOP PUBLICATIONS

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- V. Eidelman, K. Hollingshead, and P. Resnik. Noisy SMS Machine Translation in Low-Density Languages. In *Proceedings of the EMNLP Sixth Workshop on Statistical Machine Translation*, Edinburgh, UK, 30-31 July, 2011
- C. Hu, P. Resnik, Y. Kronrod, V. Eidelman, O. Buzek, and B. Bederson. The Value of Monolingual Crowdsourcing in a Real-World Translation Scenario: Simulation using Haitian Creole Emergency SMS Messages. In *Proceedings of the EMNLP Sixth Workshop on Statistical Machine Translation*, Edinburgh, UK, 30-31 July, 2011
- V. Eidelman, Z. Huang, and M. Harper. Lessons Learned in Part-of-Speech Tagging of Conversational Speech. In *Proceedings of the 2010 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, Cambridge, Massachusetts, 9-11 October, 2010
- V. Eidelman, C. Dyer, and P. Resnik. The University of Maryland Statistical Machine Translation System for the Fifth Workshop on Machine Translation. In *Proceedings of the Association for Computational Linguistics (ACL) Joint Fifth Workshop on Statistical Machine Translation and Metrics MATR*, Uppsala, Sweden, 15-16 July, 2010
- C. Dyer, A. Lopez, J. Ganitkevitch, J. Weese, F. Ture, P. Blunsom, H. Setiawan, V. Eidelman, and P. Resnik. cdec: A Decoder, Alignment, and Learning Framework for Finite-State and Context-Free Translation Models. In *Proceedings of the Association for Computational Linguistics (ACL) System Demonstrations*, Uppsala, Sweden, 11-16 July, 2010
- Z. Huang, V. Eidelman, and M. Harper. Improving A Simple Bigram HMM Part-of-Speech Tagger by Latent Annotation and Self-Training. In *Proceedings of the North American Chapter of the Association for Computational Linguistics - Human Language Technologies (NAACL-HLT)*, Boulder, Colorado, 1-3 June, 2009
- V. Eidelman. Inferring Activity Time in News through Event Modeling. In *Proceedings of the Association for Computational Linguistics (ACL) Student Research Workshop*, Columbus, Ohio, 16-18 June, 2008.
- Y. Versley, S. Ponzetto, M. Poesio, V. Eidelman, A. Jern, J. Smith, X. Yang, and A. Moschitti. BART: A Modular Toolkit for Coreference Resolution. In *Proceedings of the 46th Annual Meeting of the Association for Computational Linguistics (ACL)*, Columbus, Ohio, 16-18 June, 2008.
- Y. Versley, S. Ponzetto, M. Poesio, V. Eidelman, A. Jern, J. Smith, X. Yang, and A. Moschitti. BART: A Modular Toolkit for Coreference Resolution. In *Proceedings of the 6th International Conference on Language Resources and Evaluation (LREC)*, Marrakech, Morocco, 28-30 May, 2008.

## TECHNICAL REPORTS

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- P. Blunsom, C. Callison-Burch, T. Cohn, C. Dyer, J. Graehl, A. Lopez, J. Botha, V. Eidelman, T. Nguyen, Z. Wang, J. Weese, O. Buzek, D. Chen. 2010 Language Engineering Workshop Models for Synchronous Grammar Induction Final Report. *Technical Report for CLSP Workshop*, Johns Hopkins University, 2010
- M. Poesio, D. Day, R. Arstein, J. Duncan, V. Eidelman, C. Giuliano, R. Hall, J. Hitzeman, A. Jern, M. Kabadjov, G. Mann, P. McNamee, A. Moschitti, S. Ponzetto, J. Smith, J. Steinberger, M. Strube, J. Su, Y. Versley, X. Yang, and M. Wick. ELERFED : Final Report. *Technical Report for CLSP Workshop*, Johns Hopkins University, 2007.
- V. Eidelman and G. Trajkovski. Extension of an Algebraic Model of Cognition to a Congruent Continuous Model. *Technical Report for NSF REU*, Towson University, 2006.

## JOURNAL ARTICLES

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- G. Trajkovski, G. Stojanov, S. Collins, V. Eidelman, C. Harman, and G. Vincenti. Cognitive Robotics and Multiagency in a Fuzzy Modeling Framework. *International Journal of Agent Technologies and Systems*. 1(1):50-73, 2009.

## SERVICE

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### Reviewing

- International Conference on Language Resources and Evaluation (LREC) 2010, 2012, International Journal of Computer Mathematics (IJCM)

### University Service

- Computer Science Graduate Student Executive Council (2008-Present)
- Graduate Student Government Computer Science Program Representative (2010-2011)

## LANGUAGES

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- Native – Russian, English / Beginner – German, Spanish, Turkish
- Java, Perl, Python, C/C++, HTML, Matlab, LaTeX