

## Chris Dyer

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### CONTACT INFORMATION

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### RESEARCH INTERESTS

Statistical machine translation, unsupervised learning, computational morphology, large-scale data processing.

### EDUCATION

**University of Maryland**, College Park, Maryland, USA

Ph.D. Candidate, Linguistics, December 2008 (expected graduation date: May 2010)

- Dissertation Topic: “Learning and Translating Ambiguity”
- Advisor: Philip Resnik

**Duke University**, Durham, North Carolina USA

A.B., Computer Science, May, 2000  
A.B., Music

### PROFESSIONAL EXPERIENCE

**Google**, Mountain View, California, USA

*Research intern*

**May, 2008 – August, 2008**

Conducted research on improving word alignment for structurally divergent language pairs and discriminative training in the Machine Translation group.

**Amazon.com, Inc.**, Seattle, Washington USA

*Software development engineer*

**October, 2001 – July, 2005**

Responsibilities included design and development of software in the online and back-end order-processing systems; analysis of developer productivity bottlenecks

### PUBLICATIONS

P. Blunsom, T. Cohn, C. Dyer, and M. Osborne. A Gibbs sampler for phrasal synchronous grammar induction. In Proceedings of the Annual Meeting of the Association for Computational Linguistics (ACL), Singapore, August 2009.

S. Kumar, W. Macherey, C. Dyer, and F. Och. Efficient minimum error rate training and minimum Bayes-risk decoding for translation hypergraphs and lattices. In Proceedings of the Annual Meeting of the Association for Computational Linguistics (ACL), Singapore, August 2009.

C. Dyer. Using a maximum entropy model to build segmentation lattices for MT. In Proceedings of North American Chapter of the Association for Computational Linguistics - Human Language Technologies (NAACL HLT) 2009, Boulder, Colorado, June 2009.

A. Arun, P. Blunsom, C. Dyer, B. Haddow, A. Lopez, and P. Koehn. Monte Carlo inference and maximization for phrase-based translation. In Proceedings of Thirteenth Conference on Computational Natural Language Learning (CoNLL), Boulder, Colorado, June 2009.

C. Dyer, H. Setiawan, Y. Marton, and P. Resnik. The University of Maryland Statistical Machine Translation System for the Third Workshop on Machine Translation. In Proceedings of the Fourth Workshop on Statistical Machine Translation (WMT-2009), Athens, Greece, March 2009.

Z. Li, C. Callison-Burch, C. Dyer, J. Ganitkevitch, S. Khudanpur, L. Schwartz, W. Thornton, J. Weese, and O. Zaidan. 2009. Joshua: Open Source Toolkit for Parsing-based Machine

Translation. In Proceedings of the Fourth Workshop on Statistical Machine Translation (WMT-2009), Athens, Greece, March 2009.

- C. Dyer, A. Cordova, A. Mont, and J. Lin. Fast, Cheap, and Easy: Construction of Statistical Machine Translation Models with MapReduce. In Proceedings of the ACL-2008 Workshop on Statistical Machine Translation (WMT-2008), Columbus, Ohio, July 2008.
- C. Dyer, S. Muresan, and P. Resnik. Generalizing Word Lattice Translation. In Proceedings of the Annual Meeting of the Association for Computational Linguistics (ACL), Columbus, Ohio, July 2008.
- C. Dyer. The University of Maryland Translation System for IWSLT 2007. In Proceedings of the International Workshop on Spoken Language Translation (IWSLT) 2007, Trento, Italy, October 2007.
- C. Dyer. The 'noiser channel': Translation from morphologically complex languages. In Proceedings of the ACL-2007 Workshop on Statistical Machine Translation (WMT-2007), Prague, Czech Republic, June 2007.
- P. Koehn, H. Hoang, A. Birch, C. Callison-Burch, M. Federico, N. Bertoldi, B. Cowan, W. Shen, C. Moran, R. Zens, C. Dyer, O. Bojar, A. Constantin and E. Herbst. Moses: Open Source Toolkit for Statistical Machine Translation. In Proceedings of the Annual Meeting of the Association for Computational Linguistics (ACL), Companion Volume, Prague, Czech Republic, June 2007.
- A. Omaki, C. Dyer, S. Malhotra, J. Sprouse, J. Lidz, and C. Phillips. The time-course of anaphoric processing and syntactic reconstruction. Presented at CUNY 2007, San Diego, March 2007.

#### OTHER TALKS

- C. Dyer. Improving machine translation by propagating uncertainty. Presented at the IBM TJ Watson Research Center, Yorktown Heights, NY, August 2009.
- J. Lin and C. Dyer. Data-Intensive Text Processing with MapReduce. Tutorial presented at the North American Chapter of the Association for Computational Linguistics - Human Language Technologies (NAACL HLT) 2009 Conference.
- C. Dyer. Fast word alignment and phrase-table construction with Hadoop. Presented at Carnegie Mellon University, Pittsburgh, Pennsylvania, April 2008.
- C. Dyer. Decoder guided backoff: using word lattices to improve translation from morphologically complex languages. Presented at the MT Marathon, Edinburgh University, April 2007.
- C. Dyer and P. Resnik. Confusion network decoding in Hiero. Presented by P. Resnik at GALE 2007 PI Meeting, San Francisco, March 2007.
- C. Dyer and J. Lin. Computing in the Clouds: Applications of MapReduce in "Web-Scale" Information Processing. Presented at the University of Maryland CLIP Colloquium, October 17, 2007.
- C. Dyer. Decoder guided backoff: using word lattices to improve translation from morphologically complex languages. Presented at the MT Marathon, Edinburgh University, April 2007.
- C. Dyer and P. Resnik. Confusion network decoding in Hiero. Presented by P. Resnik at GALE 2007 PI Meeting, San Francisco, March 2007.
- C. Dyer. The Syntax of Tonal Music, Syntax Lunch Talk, University of Maryland, October 2006.

HONORS AND  
AWARDS

JHU Summer Workshop Participant, Summer, 2006  
University Fellowship, University of Maryland, 2005–2006  
Fulbright Scholar, Technical University, Berlin, Germany, 2000–2001  
Phi Beta Kappa, Duke University, 2000  
Louis Sudler Prize in the Arts, Duke University, 2000  
Horace Trumbauer Engineering Scholarship, Duke University, 1997

SERVICE

Journal reviewing: *ACM Transactions on Asian Language Information Processing*

Conference reviewing: ACL (2007, 2008, 2009), EMNLP (2008, 2009), EACL (2009), NAACL(2009),  
AMTA (2008, 2009), COLING (2008), Workshop on Machine Translation (2007, 2008)

Departmental service: Linguistics Colloquium Committee, 2006–2007; Co-organizer, Mayfest 2006  
Workshop, Department of Linguistics, University of Maryland

LANGUAGES

Native speaker of English, fluent in German, basic proficiency in Modern Standard Arabic.