# Adam Lopez

Johns Hopkins University
Human Language Technology Center of Excellence
Stieff Building, 810 Wyman Park Drive
Baltimore, MD 21211 USA
*Email:* adam.lopez@jhu.edu
*Web:* http://jshare.johnshopkins.edu/alopez20/public_html

## Research areas

Natural language processing, machine learning, language and automata theory, algorithms.

## Papers & talks

### Journal Articles

2010    A. Arun, B. Haddow, P. Koehn, A. Lopez, P. Blunsom, and C. Dyer. Monte Carlo techniques for phrase-based translation. In *Machine Translation* 24(2).

2008    A. Lopez. Statistical machine translation. In *ACM Computing Surveys* 40(3), Article 8: 1–49.

### Refereed Conference Papers

2009    A. Lopez. Translation as weighted deduction. In *Proceedings of the European Association for Computational Linguistics (EACL)*.

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

2008    A. Lopez. Tera-scale translation models via pattern matching. In *Proceedings of the International Conference on Computational Linguistics (Coling)*.

2007    A. Lopez. Hierarchical phrase-based translation with suffix arrays. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP)*.

2006    A. Lopez and P. Resnik. Word-based alignment, phrase-based translation: What's the link? In *Proceedings of the Association for Machine Translation in the Americas (AMTA)*.

2005    D. Chiang, A. Lopez, N. Madnani, C. Monz, P. Resnik, and M. Subotin. The Hiero machine translation system: extensions, evaluation, and analysis. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP)*.

### Refereed Workshop & Demonstration Papers

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) Demonstration Track*.

2009    M. Auli, A. Lopez, H. Hoang, and P. Koehn. A systematic analysis of translation model search spaces. In *Proceedings of the Workshop on Machine Translation (WMT)*.

H. Hoang, P. Koehn, and A. Lopez. A unified framework for phrase-based, hierarchical, and syntax-based statistical machine translation. In *Proceedings of the International Workshop on Spoken Language Translation (IWSLT)*.

2005    A. Lopez and P. Resnik. Improved HMM alignment models for languages with scarce resources. In *Proceedings of the Workshop on Building and Using Parallel Texts*.

A. Lopez and P. Resnik. Pattern visualization for machine translation output. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP) Demonstration Session*.

2002    A. Lopez, M. Nossal, R. Hwa, and P. Resnik. Word-level alignment for multilingual resource acquisition. In *Proceedings of the Workshop on Linguistic Knowledge Acquisition and Representation–Bootstrapping Annotated Language Data*.

### Invited talks

2010    Johns Hopkins Human Language Technology Center of Excellence, hosted by Mark Dredze.

2009    Oxford University Computing Lab, hosted by Phil Blunsom.

Cambridge University Computing Lab, hosted by Stephen Clark.

Saarland University Department of Computational Linguistics, hosted by Andreas Eisele.

Dublin City University Center for Next Generation Language Technology, hosted by Andy Way.

2008    Second Machine Translation Marathon, workshop organized by Philipp Koehn.

2007    University of Amsterdam Institute for Logic Language and Computation, hosted by Khalil Sima'an.

University of Edinburgh Department of Informatics, hosted by Philipp Koehn.

University of Pittsburgh Natural Language Processing Lab, hosted by Wendy Chapman.

Carnegie Mellon University Language Technologies Institute, hosted by Alon Lavie.

Microsoft Research, hosted by Robert C. Moore.

MITRE Corporation, hosted by Christy Doran.

2006    Colgate University Department of Computer Science, hosted by Jaime Spacco.

2005    Union College Department of Computer Science, hosted by Brian Postow.

### Tutorials & courses

2010    Statistical Machine Translation. One-week course at the European Summer School in Logic, Language and Information (ESSLLI).

Introduction to Machine Translation. Tutorial lecture at the Fifth Machine Translation Marathon.

Machine Translation. Tutorial lecture at the 2010 Johns Hopkins Summer School on Human Language Technology, with John DeNero.

Introduction to Machine Translation. Tutorial lecture at the Fourth Machine Translation Marathon.

2009    Machine Translation. Tutorial lecture at the 2009 Johns Hopkins Summer School on Human Language Technology, with John DeNero.

Introduction to Machine Translation. Tutorial lecture at the Third Machine Translation Marathon.

2008    Syntax-based Machine Translation. Tutorial lecture at the Second Machine Translation Marathon.

## Education

2008    PhD in Computer Science, University of Maryland. Supervised by Philip Resnik.

2002    MS in Computer Science, University of Maryland.

1997    BS in Computer Science, Duke University.

## Appointments

### Research positions

| | |
|---|---|
| 2010- | Research scientist, Johns Hopkins Human Language Technology Center of Excellence. |
| 2010 | Senior scientist, Johns Hopkins Center for Language and Speech Processing summer workshop. |
| 2008-2010 | Research fellow, University of Edinburgh. Supervised by Philipp Koehn. |
| 2000-7 | Graduate research assistant, University of Maryland. Supervised by Philip Resnik. |
| 2000 | Research intern, Sun Microsystems Laboratories. Supervised by William A. Woods. |

### Teaching positions

| | |
|---|---|
| 2000 | Visiting lecturer, Prince George's Community College Computer Science Department. |
| 1999 | Graduate teaching assistant, University of Maryland Computer Science Department. |
| 1994-96 | Undergraduate teaching assistant, Duke University Computer Science Department. |

### Engineering positions

| | |
|---|---|
| 1997-99 | Software engineer, IBM Corporation. |

## Professional activities & service

### Advising

Michael Auli, University of Edinburgh, PhD expected 2011. Co-supervisor with Philipp Koehn.
Lo c Dugast, University of Edinburgh, PhD expected 2011. Dissertation committee.
Hieu Hoang, University of Edinburgh, PhD expected 2010. Dissertation committee.

### Conference & workshop organization

| | |
|---|---|
| 2010 | Fourth International Workshop On Crosslingual Information Access, co-chair with Sudeshna Sarkar, Rhagavendra Udupa, and Min Zhang. |
| 2009 | Conference on Empirical Methods in Natural Language Processing (EMNLP), area chair in machine translation. |

### Reviewing

ACL 2006,8-11. Coling 2008,10. CoNLL 2010-11. EACL 2009. EMNLP 2007,9-10. ESSLLI 2010. IJCAI 2007,11. IJCNLP 2008. MT Summit 2009. NAACL 2007,9-10. Natural Language Engineering 2009. various workshops 2008-11.

### Memberships

Association for Computing Machinery.
Association for Computational Linguistics.

## Personal

United States citizen.