

## John DeNero

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POSITIONS	Assistant Teaching Professor, UC Berkeley, in Computer Science	<i>2014-present</i>
	Senior Research Scientist, Google Inc., in Google Translate	<i>2010-2014</i>
EDUCATION	<b>University of California, Berkeley</b> Ph.D., Computer Science <i>Advisor:</i> Dan Klein	<i>2005-2010</i>
	<b>Stanford University</b> Master of Arts, Philosophy	<i>2001-2002</i>
	Bachelor of Science, with distinction <i>Major:</i> Mathematical and Computational Science <i>Secondary Major:</i> Symbolic Systems	<i>1998-2002</i>
AWARDS	Giancarlo Teaching Fellow, College of Engineering	<i>2017</i>
	Jim and Donna Gray Award for Excellence in Undergraduate Teaching, EECS Department	<i>2017</i>
	Diane McEntyre Award for Excellence in Teaching, EECS Department	<i>2016</i>
	Award for Excellence in Promoting Women in Undergraduate Computing, Honorable Mention, NCWIT	<i>2016</i>
	Voted Best Faculty Member on Campus, Daily Cal	<i>2016</i>
	Outstanding Faculty of the Year Award, Tau Beta Pi	<i>2015</i>
PUBLICATIONS	Ani Adhikari and John DeNero with David Wagner. <i>Computational and Inferential Thinking</i> . Online textbook, <a href="http://www.inferentialthinking.com">http://www.inferentialthinking.com</a> , 2016.	
	John DeNero. <i>Composing Programs</i> . Online textbook, <a href="http://www.composingprograms.com">http://www.composingprograms.com</a> , 2013.	
	John DeNero. <i>Phrase Alignment Models for Statistical Machine Translation</i> . Ph.D. Dissertation in Computer Science, UC Berkeley, 2010.	
	<b>Refereed Publications</b>	
	Samee Ibraheem, Nicholas Altieri, and John DeNero. “Learning an Interactive Attention Policy for Neural Machine Translation,” in <i>MT Summit</i> , 2017.	
	Nicholas Altieri, Sherdil Niyaz, Samee Ibraheem, and John DeNero. “Improved Word and Symbol Embedding for Part-of-Speech Tagging,” in the <i>International Workshop on Symbolic-Neural Learning</i> , 2017.	
	John DeNero, Sumukh Sridhara, Manuel Pérez-Quinones, Aatish Nayak, and Ben Leong. “Beyond Autograding: Advances in Student Feedback Platforms,” panel in the <i>ACM Special Interest Group on Computer Science Education</i> , 2017.	

Joern Wuebker, Spence Green, John DeNero, Sasa Hasan and Minh-Thang Luong. “Models and Inference for Prefix-Constrained Machine Translation,” in the *Proceedings of the Association for Computational Linguistics*, 2016.

Brian Hou, Sumukh Sridhara, and John DeNero. “Fuzz Testing Projects in Massive Courses,” in *Learning @ Scale*, 2016.

Kristin Stephens-Martinez, An Ju, Colin Schoen, John DeNero, and Armando Fox. “Identifying Student Misunderstandings using Constructed Responses,” in *Learning @ Scale, Work-in-progress track*, 2016.

Brian Hou, Marvin Zhang, and John DeNero. “Restaurant Recommendations,” in the *Nifty Assignments track of the ACM Special Interest Group on Computer Science Education*, 2016.

Daniel D. Garcia, Jennifer Campbell, John DeNero, Mary Lou Dorf, and Stuart Reges. “CS10K Teachers by 2017? Try CS1K+ students NOW,” panel in the *ACM Special Interest Group on Computer Science Education*, 2016.

Aneiss Ghodsi and John DeNero. “An Analysis of the Ability of Statistical Language Models to Capture the Structural Properties of Language,” in the *International Natural Language Generation conference*, 2016.

Joern Wuebker, Spence Green, and John DeNero. “Hierarchical Incremental Adaptation for Statistical Machine Translation,” in the *Proceedings of Empirical Methods in Natural Language Processing*, 2015.

Rohan Chitnis and John DeNero. “Variable-Length Word Encodings for Neural Translation Models,” in the *Proceedings of Empirical Methods in Natural Language Processing*, 2015.

Soumya Basu, Brian Hou, Albert Wu, and John DeNero. “Problems Before Solutions: Automated Problem Clarification at Scale,” in *Learning @ Scale*, 2015.

John DeNero and Stephen Martinis. “Teaching Composition Quality at Scale,” in the *Proceedings of the ACM Special Interest Group on Computer Science Education*, 2014.

John DeNero, Tom Magrino, and Eric Tzeng. “Ants Vs SomeBees,” in the *Nifty Assignments track of the ACM Special Interest Group on Computer Science Education*, 2014.

Karl Pichotta and John DeNero. “Identifying Phrasal Verbs Using Many Bilingual Corpora,” in the *Proceedings of the Conference on Empirical Methods in Natural Language Processing*, 2013.

Greg Durrett and John DeNero. “Supervised Learning of Complete Morphological Paradigms,” in the *Proceedings of the North American Association of Computational Linguistics*, 2013.

John DeNero and Aditi Muralhindaran. “Twitter Trends,” in the *Nifty Assignments track of the ACM Special Interest Group on Computer Science Education*, 2013.

David Golland, John DeNero, and Jakob Uszkoreit. “A Feature-Rich Constituent Context Model for Grammar Induction,” in the *Proceedings of the Association of Computational Linguistics*, 2012.

Spence Green and John DeNero. “A Class-Based Agreement Model for Generating Accurately Inflected Translations,” in the *Proceedings of the Association of Computational Linguistics*, 2012.

Mohit Bansal, John DeNero, and Dekang Lin. “Unsupervised Translation Sense Clustering,” in the *Proceedings of the North American Association of Computational Linguistics*, 2012.

Robert Moore and John DeNero. “L1 and L2 Regularization for Multiclass Hinge Loss Models,” in the *Proceedings of the Symposium on Machine Learning in Speech and Language Processing*, 2011.

John DeNero and Jakob Uszkoreit. “Inducing Sentence Structure from Parallel Corpora for Reordering,” in the *Proceedings of the Conference on Empirical Methods in Natural Language Processing*, 2011.

John DeNero and Klaus Machery. “Model-Based Aligner Combination Using Dual Decomposition,” in the *Proceedings of the Association of Computational Linguistics*, 2011.

John DeNero and Dan Klein. “Discriminative Modeling of Extraction Sets for Machine Translation,” in the *Proceedings of the Association of Computational Linguistics*, 2010.

John DeNero, Shankar Kumar, Ciprian Chelba, and Franz Och. “Model Combination for Machine Translation,” in the *Proceedings of the North American Association of Computational Linguistics*, 2010.

John DeNero and Dan Klein. “Teaching Introductory Artificial Intelligence with Pac-Man,” in the *Proceedings of the Symposium on Educational Advances in Artificial Intelligence*, 2010.

John DeNero and Dan Klein. “The Pac-Man Projects Software Package for Introductory Artificial Intelligence,” in the *Proceedings of the Symposium on Educational Advances in Artificial Intelligence, Model Assignments Track*, 2010.

Taylor Berg-Kirkpatrick, Alexandre Bouchard-Ct, John DeNero, and Dan Klein. “Painless Unsupervised Learning with Features,” in the *Proceedings of the North American Association of Computational Linguistics*, 2010.

John DeNero, David Chiang, and Kevin Knight. “Fast Consensus Decoding over Translation Forests,” in the *Proceedings of the Association of Computational Linguistics*, 2009.

Adam Pauls, John DeNero, and Dan Klein. “Consensus Training for Consensus Decoding in Machine Translation,” in the *Proceedings of the Conference on Empirical Methods in Natural Language Processing*, 2009.

John DeNero, Adam Pauls, and Dan Klein. “Asynchronous Binarization for Synchronous Grammars,” in the *Proceedings of the Association of Computational Linguistics, Short Paper Track*, 2009.

Aria Haghighi, John Blitzer, John DeNero, and Dan Klein. “Better Word Alignments with Supervised ITG Models,” in the *Proceedings of the Association of Computational Linguistics*, 2009.

John DeNero, Mohit Bansal, Adam Pauls, and Dan Klein. “Efficient Parsing for Transducer Grammars,” in the *Proceedings of the North American Association of Computational Linguistics*, 2009.

John DeNero, Alex Bouchard-Ct, and Dan Klein. “Sampling Alignment Structure under a Bayesian Translation Model,” in the *Proceedings of the Conference on Empirical Methods in Natural Language Processing*, 2008.

John DeNero and Dan Klein. “The Complexity of Phrase Alignment Models,” in the *Proceedings of the Association of Computational Linguistics, Short Paper Track*, 2008.

John DeNero and Alexandre Bouchard. “A Hierarchical Dirichlet Process Prior for a Conditional Model of Phrase Alignment,” in the *Workshop on Unsupervised Models in NLP, Neural and Information Processing Systems*, 2008.

Aria Haghighi, John DeNero, and Dan Klein. “A\* Search via Approximate Factoring,” in the *Proceedings of American Association of Artificial Intelligence, Nectar Track*, 2007.

John DeNero and Dan Klein. “Tailoring Word Alignments to Syntactic Machine Translation,” in the *Proceedings of the Association of Computational Linguistics*, 2007.

Aria Haghighi, John DeNero, and Dan Klein. “Approximate Factoring for A\* Search,” in the *Proceedings of the North American Association of Computational Linguistics*, 2007.

John DeNero, Dan Gillick, James Zhang, and Dan Klein. “Why Generative Phrase Models Underperform Surface Heuristics,” in the *Proceedings of the Workshop on Statistical MT*, 2006.

## ACTIVITIES

**Organizing Committee:** EAAI ’13, EAAI ’14, NACLO/ELCLO ’13, NACLO/ELCLO ’14, EMNLP ’15 (Session chair), NAACL ’16 (Demonstration chair), EMNLP ’16 (Area chair, translation)

**Conference Reviewer:** EMNLP ’08, NAACL ’09, ACL ’09, EMNLP ’09, MT Summit ’09, NAACL ’10, ACL ’10, COLING ’10, ACL ’11, AAAI ’11, EMNLP ’11, NAACL ’12, ACL ’12, EMNLP ’12, EAAI ’12, NAACL ’13, ACL ’13, EMNLP ’13, EACL ’14, NAACL ’15, ACL ’15, EMNLP ’15, SIGCSE ’17

EXTERNAL INVITED TALKS	Invited Panel Moderator on Neural Machine Translation, TAUS <i>Host:</i> Jaap van der Meer	2017
	Invited Talk on Computer Science Capacity, Google New York <i>Host:</i> Chris Stephenson	2017
	Invited Talk on Data Science Education, San Jose State University <i>Host:</i> Belle Wei	2017
	Invited Talk on Data Science Education, UC San Diego <i>Host:</i> Ramamohan Paturi	2017
	Invited Panelist on Data Science Education, American Statistical Association (ASA) and Association for Computing Machinery (ACM) <i>Host:</i> Steve Pierson	2017
	Invited Talk on Computer Science Capacity, Google <i>Host:</i> Chris Stephenson	2015
	Invited Research Talk, Google Research <i>Host:</i> Jay Ponte	2010
	Invited Research Talk, Yahoo! Research <i>Host:</i> Patrick Pantel	2010
	Invited Research Talk, Microsoft Research <i>Host:</i> Robert Moore	2010
	Invited Research Talk, Toyota Technological Institute, Chicago <i>Host:</i> Karen Livescu	2010
	Invited Research Talk, New York University <i>Host:</i> Richard Cole	2010
	Invited Research Talk, Johns Hopkins University	2010

*Host:* Mark Dredze

Invited Research Talk, University of Maryland

*2010*

*Host:* Jimmy Lin

Invited Research Talk, Yahoo! Research

*2008*

*Host:* Patrick Pantel

Invited Research Talk, Information Sciences Institute

*2008*

*Host:* Kevin Knight

Invited Research Talk, International Computer Science Institute

*2008*

*Host:* Dilek Hakkani-Tür

Invited Research Talk, Microsoft Research Asia

*2008*

*Host:* Mu Li

Invited Research Talk, SRI International

*2008*

*Host:* Jing Zheng