

W Spence Green

CONTACT INFORMATION

Computer Science Department
Stanford University
Stanford, CA 94305 USA

spencegreen.com

RESEARCH INTERESTS

Natural language processing, machine translation, Arabic, statistical parsing, and machine learning.

EDUCATION

Stanford University, Stanford, CA USA

Doctor of Philosophy, Computer Science

August 2011 – present

Master of Science, Computer Science, with Distinction in Research

August 2008 – December 2011

- Advisor: Prof. Chris Manning

University of Virginia, Charlottesville, VA USA

Bachelor of Science, with Highest Distinction

August 2001 – May 2004

- Major: Computer Engineering
- Minor: Religious Studies
- Advisor: Prof. Ron Williams

HONORS AND AWARDS

National Science Foundation Graduate Fellowship (NSF), 2011-2014

National Defense Science and Engineering Graduate Fellowship (NDSEG), 2008-2011

Trustee Scholarship, Lafayette College, 2000-2001

Engineering Fellowship, Washington University in St. Louis, 2000 (declined)

PUBLICATIONS

Spence Green, Sida Wang, Daniel Cer, and Christopher D. Manning. 2013. *Fast and Adaptive Online Training of Feature-Rich Translation Models*. In *ACL*.

Spence Green, Jeffrey Heer, and Christopher D. Manning. 2013. *The Efficacy of Human Post-Editing for Language Translation*. In *CHI*. **Best Paper Award**.

Spence Green, Marie-Catherine de Marneffe, and Christopher D. Manning. 2013. *Parsing Models for Identifying Multiword Expressions*. In *Computational Linguistics*.

Spence Green and John DeNero. 2012. *A Class-Based Agreement Model for Generating Accurately Inflected Translations*. In *ACL*.

Spence Green, Nicholas Andrews, Matthew R. Gormley, Mark Dredze, and Christopher D. Manning. 2012. *Entity Clustering Across Languages*. In *NAACL*.

Spence Green, Marie-Catherine de Marneffe, John Bauer and Christopher D. Manning. 2011. *Multiword Expression Identification with Tree Substitution Grammars: A Parsing tour de force with French*. In *EMNLP*.

Spence Green, Nicholas Andrews, Matt Gormley, Mark Dredze, and Christopher D. Manning. 2011. *Cross-lingual Coreference Resolution: A New Task for Multilingual Comparable Corpora*. Technical Report 6, Johns Hopkins University.

Spence Green and Christopher D. Manning. 2010. *Better Arabic Parsing: Baselines, Evaluations, and Analysis*. In *COLING*.

Spence Green, Michel Galley, and Christopher D. Manning. 2010. *Improved Models of Distortion Cost for Statistical Machine Translation*. In *NAACL*.

Spence Green, Conal Sathi, and Christopher D. Manning. 2009. *NP subject detection in verb-initial Arabic clauses*. In *Proceedings of the Third Workshop on Computational Approaches to Arabic Script-based Languages (CAASL3)*.

Michel Galley, Spence Green, Daniel Cer, Pi-Chuan Chang, Christopher D. Manning. 2009. *Stanford University's Arabic-to-English Statistical Machine Translation System for the 2009 NIST Evaluation*. The 2009 NIST Open Machine Translation Evaluation Meeting.

Spence Green. 2004. *Development of a Prescription Drug Management System (SmartPill)*. Undergraduate Thesis, University of Virginia, Department of Electrical and Computer Engineering.

PROFESSIONAL
EXPERIENCE

XSeed Capital, Inc., Portola Valley, CA USA **2013–Present**
Fellow

Technical diligence for early stage seed investment fund.

Google Inc., Mountain View, CA USA **Summer 2011**

Software/Research Intern, Google Translate

Developed a syntactic language model for improving translation from English to languages with richer grammatical agreement relations. Improved English-to-Arabic translation.

Johns Hopkins University, Baltimore, MD USA **Summer 2010**

Student Researcher, Human Language Technology Center of Excellence

Participated in the SCALE 2010 research workshop. Advised by Prof. Mark Dredze. Developed new models for cross-lingual coreference resolution.

Northrop Grumman Corp., Baltimore, MD USA **2004 – 2008**

Technical Lead, Postal Automation Systems

2007 – 2008

Responsible for design and implementation of the operations management platform for the \$1 billion USPS Flats Sequencing System (FSS). Systems development in .NET 2.0/3.0 technologies. Led a customer Critical Design Review (CDR).

Project Manager, Abu Dhabi, UAE

2006 – 2007

Managed an 11-person, international team. Reorganized a struggling 3-year effort and delivered a new air defense planning product in ten months. Implemented software processes, organized training, implemented code inspections and quality control, led a customer Critical Design Review (CDR).

Software / Field Engineering, Abu Dhabi, UAE

2005 – 2006

Supported UAE Air Force and Air Defense (AFAD) EADGE system. Successfully closed-out company's warranty obligation; resolved over 80 software problems in 14 months. Significant customer interaction at colonel/major command levels.

Professional Development Program

2004 – 2005

SD&T — Software design lead, DARPA ASSIST program. Designed image-collection software used by U.S. Army for IED detection in Iraq. Significant customer interaction in addition to technical responsibilities.

EW Digital Systems — EA-6B Prowler ICAP III electronic warfare program. Responsible for FPGA firmware and hardware on two radar arrays.

Lockheed Martin Aeronautics Corp., Marietta, GA USA **Summer 2003**

Software Engineer, Advanced Development Programs (The Skunk Works)

Designed a 3D flight path modeling application for the F/A-22 and F-35 test programs.

SPARTA Inc., Huntsville, AL USA **Summer 2002**

Hardware Engineer

Analyzed various defense systems.

ACADEMIC SERVICE *Conference Reviews:*

- Association for Computational Linguistics (ACL): 2012–2014
- European Association for Computational Linguistics (EACL): 2014
- IEEE Information Visualization Conference (InfoVis): 2012
- International Joint Conference on Artificial Intelligence (IJCAI): 2011
- Empirical Methods in Natural Language Processing (EMNLP): 2011–2013
- Conference on Natural Language Learning (CoNLL): 2011
- Workshop on Machine Translation (WMT): 2011
- Workshop on Statistical Parsing of Morphologically Rich Languages (SPMRL): 2011–2013

Journal Reviews:

- Computational Linguistics (CL): 2012
- Machine Translation Journal: 2010
- International Journal of Document Analysis and Recognition: 2011

Book Reviews:

- *Semitic Natural Language Processing*. Springer. 2012

LANGUAGES English (native), Arabic (fluent).

PROGRAMMING Ada83/95, ASP.NET, C, C++/.NET, C#, Java, Javascript (+jQuery), L^AT_EX, MATLAB, Markup languages (HTML, XML, SGML, etc.), Python, Shell scripting(Tcl, bash, etc.), VHDL.

INTERESTS Running, scuba diving (certification: IANTD CCR Full Trimix), backpacking, reading, writing.

REFERENCES

Prof. Dan Jurafsky Professor Department of Linguistics Stanford University Stanford, CA USA	Prof. Christopher D. Manning Associate Professor Computer Science Department Stanford University Stanford, CA USA
Dr. John DeNero Research Scientist Google Inc. Mountain View, CA USA	Mr. Paul Sesto Engineering Manager Northrop Grumman Corp. Baltimore, MD USA