

# Jonathan K. Kummerfeld

---

Name: jkummerf at University: umich.edu

**Education**      PhD in Computer Science      2010–2016  
University of California, Berkeley, Adviser: Dan Klein  
Thesis: “Algorithms for Identifying Syntactic Errors and Parsing with Graph Structured Output”

Bachelor of Science (Advanced) (Honours) Class I with University Medal      2006–2009  
University of Sydney, Adviser: James Curran  
Thesis: “Adaptive Supertagging for Faster Parsing”

## **Publications      Computational Linguistics**

An Empirical Analysis of Optimization for Max-Margin NLP  
J. K. Kummerfeld, T. Berg-Kirkpatrick, and D. Klein  
*Empirical Methods in Natural Language Processing*, 2015

Error-Driven Analysis of Challenges in Coreference Resolution  
J. K. Kummerfeld and D. Klein  
*Empirical Methods in Natural Language Processing*, 2013

An Empirical Examination of Challenges in Chinese Parsing  
J. K. Kummerfeld, D. Tse, J. R. Curran, and D. Klein  
*Association for Computational Linguistics*, 2013

Parser Showdown at the Wall Street Corral: An Empirical Investigation of Error Types in Parser Output  
J. K. Kummerfeld, D. Hall, J. R. Curran, and D. Klein  
*Empirical Methods in Natural Language Processing*, 2012

Robust Conversion of CCG Derivations to Phrase Structure Trees  
J. K. Kummerfeld, D. Klein, and J. R. Curran  
*Association for Computational Linguistics*, 2012

Mention Detection: Heuristics for the OntoNotes annotations  
J. K. Kummerfeld, M. Bansal, D. Burkett, and D. Klein  
*Conference on Natural Language Learning*, 2011

Faster Parsing by Supertagger Adaptation  
J. K. Kummerfeld, J. Roesner, T. Dawborn, J. Haggerty, J. Curran, and S. Clarke  
*Association for Computational Linguistics*, 2010

Morphological Analysis Can Improve a CCG Parser for English  
M. Honnibal, J. K. Kummerfeld, and J. R. Curran  
*International Conference on Computational Linguistics*, 2010

Faster Parsing and Supertagging Model Estimation  
J. K. Kummerfeld, J. Roesner, and J. R. Curran  
*Australasian Language Technology Association*, 2009

Classification of Verb Particle Constructions with the Google Web1T Corpus  
J. K. Kummerfeld and J. R. Curran  
*Australasian Language Technology Association*, 2008

## **Physical Sciences**

High-velocity Clouds in the Galactic All Sky Survey. I. Catalog  
V. A. Moss, N. M. McClure-Griffiths, T. Murphy, D. J. Pisano, J. K. Kummerfeld, and

J. R. Curran

*The Astrophysical Journal Supplement Series*, 2013, 209:12

Spatiotemporal Hierarchy of Relaxation Events, Dynamical Heterogeneities, and Structural Reorganization in a Supercooled Liquid

R. Candelier, A. Widmer-Cooper, J. K. Kummerfeld, O. Dauchot, G. Biroli, P. Harrowell, and D. R. Reichman

*Physical Review Letters*, 2010, 105:135702

The Densest Packing of AB Binary Hard-Sphere Homogeneous Compounds across all Size Ratios

J. K. Kummerfeld, T. S. Hudson, and P. Harrowell

*The Journal of Physical Chemistry B*, 2008, 112:10773–10776

## Employment

University of Michigan

September 2016 – Present

Postdoctoral Research Fellow in Computer Science Engineering.

### Consultant

Stealth startup

May 2015 – Present

Technical adviser for product development.

WriteLab

March 2014 – Present

Technical adviser for automatic linguistic cue identification.

Techbridge

September 2013 - May 2014

Development of the High School CS Curriculum.

### Software Engineer – Intern

Google Research

May - August 2012

Mountain View Office, Natural Language Processing team.

Google

December 2007 - February 2008

Sydney Office, Infrastructure team.

**Research Assistant**, University of Sydney

School of Information Technologies, Prof. Kay

2010

School of Physics, Dr. Murphy

2010

School of Chemistry, Prof. Harrowell

2009

School of Letters, Art and Media, Dr. Bode

2008, 2009

## Teaching and Talks

### Instructor

Artificial Intelligence, Berkeley

Summer 2014

Co-taught upper division course – gave lectures, managed TAs, and prepared exams.

Evaluation: 6.3 / 7 (top 11% of UCB EECS instructors giving public results).

### Invited Speaker

University of Macquarie, Centre for Language Technology

June 2016

Sydney Humans, Language, Technology MeetUp

May 2016

University of Sydney

May 2016

Information Sciences Institute, Natural Language Seminar

March 2016

CommonCrawl, Big Open Data Hackathon

May 2014

### Lecturer

The Beauty and Joy of Computing, Berkeley

Summer 2014

Applied Natural Language Processing, Berkeley

Fall 2013

Proseminar in the Digital Humanities, Berkeley

Spring 2013

	<b>Teaching Assistant</b>	
	Artificial Intelligence, Berkeley	Fall 2011
	Held sections and office hours, prepared assignments, exams and sections.	
	Artificial Intelligence (Advanced), Sydney	Fall 2009
	Held sections (third year elective Computer Science course).	
	Informatics (Advanced), Sydney	Fall 2009
	Held sections and graded assignments (first year core Computer Science course).	
	<b>High School Outreach</b>	
	Australian Informatics Olympiad, ANU	2007–2010
	Gave lectures, prepared exams and autograders, prepared labs.	
<b>Awards and Honors</b>	National Computer Science School, Sydney	2007, 2008, 2010
	Led a group of 16 high school students, who learned python and built a search engine.	
	Computational Linguistics Olympiads	2013, 2014, 2015
	Set problems for the competition.	
	<b>Chair’s Special Award</b>	2013
	For services to the EECS department during student admissions	
	<b>Outstanding Graduate Student Instructor Award</b>	2011
	University wide award in recognition of exceptional achievements as a teacher	
	<b>General Sir John Monash Award</b>	2010 - 2013
	“Australia’s most prestigious postgraduate scholarships”	
<b>Professional Service</b>	<b>University Medal in Computer Science</b>	2009
	For outstanding results, awarded at the discretion of the university senate	
	<b>University of Sydney Academic Merit Prize</b>	2008
	Recognises the highest performing undergraduate students in each faculty	
	<b>Helen Beh Award for Citizenship</b>	2007
	For contributions to non-academic activities	
	<b>Sydney University Merit Scholarship</b>	2006–2009
	For academic results, leadership, and communication skills	
	Graduate Admissions Committee, Berkeley Computer Science	2015
	President, Berkeley Computer Science Graduate Student Association	2012–2013
	<b>Program Committee</b>	
	Transactions of the Association for Computational Linguistics (TACL)	2016
	North American Association for Computational Linguistics (NAACL)	2015, 2016
	Empirical Methods in Natural Language Processing (EMNLP)	2015, 2016
	Association for the Advancement of Artificial Intelligence (AAAI)	2016
	World Wide Web Conference (WWW)	2016
	Conference on Natural Language Learning (CoNLL)	2016
	Association for Computational Linguistics (ACL), secondary reviewer	2014
	Student Research Workshop at NAACL	2015, 2016
	Student Research Workshop at ACL	2014