

Jonathan K. Kummerfeld

jkummerf@umich.edu

- Current** University of Michigan September 2016 – Present
Postdoctoral Research Fellow in Computer Science Engineering.
CROMA Lab (2018–Present), Sapphire Project (2016–2018)
- Education** PhD in Computer Science 2010–2016
“Algorithms for Identifying Syntactic Errors and Parsing with Graph Structured Output”
University of California, Berkeley
Adviser: Dan Klein
- Bachelor of Science (Advanced) (Honours) Class I with University Medal 2006–2009
“Adaptive Supertagging for Faster Parsing”
University of Sydney
Adviser: James Curran
- Publications:** Crowdsourced Detection of Emotionally Manipulative Language
Conference J. S. Huffaker, **J. K. Kummerfeld**, W. S. Lasecki, M. S. Ackerman
Proceedings *CHI: Conference on Human Factors in Computing Systems*, 2020
- No-Press Diplomacy: Modeling Multi-Agent Gameplay
P. Paquette, Y. Lu, S. Bocco, M. O. Smith, S. Ortiz-Gagné, **J. K. Kummerfeld**,
J. Pineau, S. Singh, A. Courville
NeurIPS: Advances in Neural Information Processing Systems, 2019
- An Evaluation for Intent Classification and Out-of-Scope Prediction
S. Larson, A. Mahendran, J. J. Peper, C. Clarke, A. Lee, P. Hill, **J. K. Kummerfeld**,
K. Leach, M. A. Laurenzano, L. Tang and J. Mars
EMNLP: Empirical Methods in Natural Language Processing, 2019
- A Large-Scale Corpus for Conversation Disentanglement
J. K. Kummerfeld, S. R. Gouravajhala, J. Peper, V. Athreya, C. Gunasekara, J. Gan-
hotra, S. S. Patel, L. Polymenakos, W. S. Lasecki
ACL: Association for Computational Linguistics, 2019
- SLATE: A Super-Lightweight Annotation Tool for Experts
J. K. Kummerfeld
ACL Demo: Association for Computational Linguistics: Demonstrations, 2019
- Outlier Detection for Improved Data Quality and Diversity in Dialog Systems
S. Larson, A. Mahendran, A. Lee, **J. K. Kummerfeld**, P. Hill, M. Laurenzano, J. Hauswald,
L. Tang, J. Mars
NAACL: North American Chapter of the Association for Computational Linguistics, 2019
- Look Who’s Talking: Inferring Speaker Attributes from Personal Longitudinal Dialog
C. Welch, V. Perez-Rosas, **J. K. Kummerfeld**, R. Mihalcea
CICLing: Computational Linguistics and Intelligent Text Processing, 2019
- Best Student Paper Award**
- Improving Text-to-SQL Evaluation Methodology
C. Finegan-Dollak*, **J. K. Kummerfeld***, L. Zhang, K. R. D. Ramanathan, S. Sadasiv-
vam, R. Zhang, D. Radev
ACL: Association for Computational Linguistics, 2018
- Factors Influencing the Surprising Instability of Word Embeddings
L. Wendlandt, **J. K. Kummerfeld**, R. Mihalcea

NAACL: North American Chapter of the Association for Computational Linguistics, 2018

Effective Crowdsourcing for a New Type of Summarization Task

Y. Jiang, C. Finegan-Dollak, **J. K. Kummerfeld**, W. Lasecki

NAACL: North American Chapter of the Association for Computational Linguistics, 2018

Data Collection for Dialogue System: A Startup Perspective

Y. Kang, Y. Zhang, **J. K. Kummerfeld**, P. Hill, J. Hauswald, M. A. Laurenzano, L. Tang, J. Mars

NAACL: North American Chapter of the Association for Computational Linguistics, 2018

World Knowledge for Semantic Parsing with Abstract Meaning Representation

C. Welch, **J. K. Kummerfeld**, S. Feng, R. Mihalcea

LREC: Language Resources and Evaluation Conference, 2018

Identifying Products in Online Cybercrime Marketplaces: A Dataset for Fine-grained Domain Adaptation

G. Durrett, **J. K. Kummerfeld**, T. Berg-Kirkpatrick, R. S. Portnoff, S. Afroz, D. McCoy, K. Levchenko, V. Paxson

EMNLP: Empirical Methods in Natural Language Processing, 2017

Understanding Task Design Trade-offs in Crowdsourced Paraphrase Collection

Y. Jiang, **J. K. Kummerfeld**, W. S. Lasecki

ACL: Association for Computational Linguistics, 2017

Tools for Automated Analysis of Cybercriminal Markets

R. S. Portnoff, S. Afroz, G. Durrett, **J. K. Kummerfeld**, T. Berg-Kirkpatrick, D. McCoy, K. Levchenko, V. Paxson

WWW: International World Wide Web Conferenc, 2017

An Empirical Analysis of Optimization for Max-Margin NLP

J. K. Kummerfeld, T. Berg-Kirkpatrick, D. Klein

EMNLP: Empirical Methods in Natural Language Processing, 2015

Error-Driven Analysis of Challenges in Coreference Resolution

J. K. Kummerfeld, D. Klein

EMNLP: Empirical Methods in Natural Language Processing, 2013

An Empirical Examination of Challenges in Chinese Parsing

J. K. Kummerfeld, D. Tse, J. R. Curran, D. Klein

ACL: 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, D. Klein

EMNLP: Empirical Methods in Natural Language Processing, 2012

Robust Conversion of CCG Derivations to Phrase Structure Trees

J. K. Kummerfeld, D. Klein, J. R. Curran

ACL: Association for Computational Linguistics, 2012

Mention Detection: Heuristics for the OntoNotes annotations

J. K. Kummerfeld, M. Bansal, D. Burkett, D. Klein

CoNLL Shared Task: Conference on Natural Language Learning Shared Task, 2011

Faster Parsing by Supertagger Adaptation

J. K. Kummerfeld, J. Roesner, T. Dawborn, J. Haggerty, J. Curran, S. Clarke

ACL: Association for Computational Linguistics, 2010

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

Publications: Overview of the seventh Dialog System Technology Challenge: DSTC7
Journals L. F. D’Haro, K. Yoshino, C. Hori, T. K. Marks, L. Polymenakos, **J. K. Kummerfeld**,
M. Galley, X. Gao
CSL: Computer Speech & Language, 2020

Parsing with Traces: An $O(n^4)$ Algorithm and a Structural Representation
J. K. Kummerfeld, D. Klein
TACL: Transactions of the Association for Computational Linguistics, 2017

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**,
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, D. R Reichman
PRL: 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, P. Harrowell
The Journal of Physical Chemistry B, 2008, 112:10773–10776

Publications: The Eighth Dialog System Technology Challenge
Workshops S. Kim, M. Galley, C. Gunasekara, S. Lee, A. Atkinson, B. Peng, H. Schulz, J. Gao, J. Li, M. Adada, M. Huang, L. Lastras, **J. K. Kummerfeld**, W. S. Lasecki, C. Hori, A. Cherian, T. K. Marks, A. Rastogi, X. Zang, S. Sunkara, R. Gupta
NeurIPS Workshop on Conversational AI, 2019

DSTC7 Task 1: Noetic End-to-End Response Selection
C. Gunasekara, **J. K. Kummerfeld**, L. Polymenakos, W. S. Lasecki
DSTC: Dialog System Technology Challenges, 2019

Dialog System Technology Challenge 7
K. Yoshino, C. Hori, J. Perez, L. F. D’Haro, L. Polymenakos, C. Gunasekara, W. S. Lasecki, **J. K. Kummerfeld**, M. Galley, C. Brockett, J. Gao, B. Dolan, X. Gao, H. Alamari, T. K. Marks, D. Parikh, D. Batra
NeurIPS Workshop on Conversational AI, 2018

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

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

Grants, Awards, and Honors **Bloomberg Data Science Research Grant** 2019
Co-PI on grant to develop adaptive annotation methods
Outstanding Postdoctoral Fellow Award 2018

For excellence in research, mentorship, teaching, leadership, and service

Michigan Institute for Data Science Music Initiative 2018
Co-PI on grant to develop models that map text to music (75k)

Allen Institute for AI Key Scientific Challenges Program 2017
Unrestricted funding to support research (10k)

Chair's Special Award 2013
For services to the EECS department during student admissions and recruitment

Outstanding Graduate Student Instructor Award 2011
University wide award in recognition of exceptional achievements as a teacher

General Sir John Monash Award 2009
"Australia's most prestigious postgraduate scholarships"

University Medal in Computer Science 2009
For outstanding results, awarded at the discretion of the university senate

Employment **Postdoctoral Research Fellow**
University of Michigan September 2016 – Present

Software Engineer – Intern
Google Research – Mountain View, NLP team May - August 2012
Google – Sydney, Infrastructure team December 2007 - February 2008

Research Assistant
U. Sydney, School of Information Technologies, Prof. Kay 2010
U. Sydney, School of Physics, Dr. Murphy 2010
U. Sydney, School of Chemistry, Prof. Harrowell 2009
U. Sydney, School of Letters, Art and Media, Dr. Bode 2008, 2009

Teaching, Mentoring, Invited 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 with public results).

Talks
University of California, Berkeley, NLP Seminar February 2018
Midwest Speech and Language Days & CL Colloquium 2017, 2018
University of Macquarie, Centre for Language Technology June 2016, August 2017
Sydney Humans, Language, Technology MeetUp May 2016, August 2017
University of Sydney May 2016
Information Sciences Institute, Natural Language Seminar March 2016
CommonCrawl, Big Open Data Hackathon May 2014
Cambridge Computer Laboratory August 2013
Berkeley Syntax Circle 2012

Guest Lecturer
The Anatomy of Natural Language Processing Systems, Michigan Winter 2018
The Beauty and Joy of Computing, Berkeley Summer 2014
Applied Natural Language Processing, Berkeley Fall 2013
Proseminar in the Digital Humanities, Berkeley Spring 2013

Undergraduate & Masters Mentor

Olivia Garrahan (1st year), Michigan CROMA Lab	2018-2019
Thomas Searle (1st year), Michigan Undergraduate Research Opportunity	2016-2017
Hyun A. Chung (2nd year), Michigan Undergraduate Research Opportunity	2017-2018
Orion Cleaver (2nd year), Michigan Undergraduate Research Opportunity	2017-2018
Alexandra Wu (2nd year), Girls Encoded: Explore CS Research	Spring 2019
Yuyi Qu (2nd year), Girls Encoded: Explore CS Research	Spring 2019
Sophia He (2nd year), Michigan CROMA Lab	Fall 2018
Varun Kutirakulam (2nd year), Michigan CROMA Lab	Fall 2018
Joseph Peper (transfer), Michigan Undergraduate Research Opportunity	2016-2017
Jiyong Shim (3rd year), Berkeley NLP Lab	2013-2014
Philip Su (3rd year), Intern at Naming Matters	Summer 2015
Kejia Yang (Masters), Michigan CROMA Lab	2018-2019
Vignesh Athreya (Masters), Michigan Project Sapphire	Spring 2017

Teaching Assistant

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).	

High School Outreach

Australian Informatics Olympiad	2007–2010
Gave lectures, prepared exams and autograders, prepared labs.	

National Computer Science School	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, 2016
Set problems for the competition.	

Professional Service

DSTC: Dialog System Technology Challenges, Task Organiser	2018, 2019
---	------------

University Internal

Hiring Committee for Research Investigator, Michigan Medical School	2017
Graduate Admissions Committee, Michigan Artificial Intelligence	2017
Graduate Admissions Committee, Berkeley Artificial Intelligence	2015
President, Berkeley Computer Science Graduate Student Association	2012–2013

Journal Reviewer

TACL: Transactions of the Association for Computational Linguistics	2016
JAIR: Journal of Artificial Intelligence Research	2017
CSL: Computer Speech & Language	2017, 2019

Area Chair

ACL: Association for Computational Linguistics	
Computational Social Science and Social Media	2020

Program Committee - Conferences

ACL: Association for Computational Linguistics	2014 (2nd), 2016, 2017, 2018, 2019
NAACL: North American Chapter of the ACL	2015, 2016, 2018, 2019
EMNLP: Empirical Methods in Natural Language Processing	2015, 2016, 2017, 2018, 2019
EACL: European Chapter of the ACL	2017

AAAI: Association for the Advancement of Artificial Intelligence	2016, 2019
IJCAI: International Joint Conference on Artificial Intelligence	2019
CHI: Conference on Human Factors in Computing Systems	2019
UIST: ACM User Interface Software and Technology Symposium	2019 WWW /
WebConf: World Wide Web Conference	2016, 2019
IJCNLP: International Joint Conference on Natural Language Processing	2017
CoNLL: Conference on Natural Language Learning	2016, 2017, 2018, 2019

Program Committee - Workshops

SRW: Student Research, NAACL	2015, 2016, 2018, 2019
SRW: Student Research, ACL	2014
IWPT: International Conference on Parsing Technologies	2020
EthNLP: Ethics in NLP	2017
RepEval: Evaluating Vector Space Representations for NLP	2019
NLP-CSS: NLP and Computational Social Science	2019
W-NUT: Noisy User-generated Text	2018, 2019
Gen-Deep: New Forms of Generalization in Deep Learning and NLP	2018
DeepLo: Deep Learning for Low Resource NLP	2019

Mentor

Student Research Workshop at NAACL	2019
------------------------------------	------