

Jack Hessel

Computer Science Department, Gates 211
Cornell University, Ithaca, New York
www.cs.cornell.edu/~jhessel
github.com/jmhessel

jhessel@cs.cornell.edu
(650)455-8701

Education

- **Cornell University** Ithaca, New York
Ph.D. Candidate 2014 - Present
 - Advisor: Lillian Lee
 - Machine learning, natural language processing, social interactions
- **Carleton College** Northfield, Minnesota
Bachelor of Arts 2010 - 2014
 - Magna Cum Laude, Computer Science (with honors) and Mathematics/Statistics

Conference Papers

- Hessel, Jack, David Mimno, and Lillian Lee. “Quantifying the Visual Concreteness of Words and Topics in Multimodal Datasets.” NAACL 2018. (32% accept rate) ([link](#))
- Hessel, Jack, Lillian Lee, and David Mimno. “Cats and Captions vs. User Characteristics and the Clock: A Time-Controlled Analysis of Multimodal Content.” WWW 2017. (17% accept rate) ([link](#))
- Hessel, Jack, Chenhao Tan and Lillian Lee. “Science, AskScience and BadScience: On the Coexistence of Highly Related Communities.” ICWSM 2016. (17% accept rate) ([link](#))
- Hessel, Jack, and Sherri Goings. “Using Reproductive Altruism to Evolve Multicellularity in Digital Organisms.” In Advances in Artificial Life, ECAL 2013. (Oral presentation) ([link](#))

Workshop Papers and Other Projects

- Hessel, Jack and David Mimno. “Aligning Images and Text in a Digital Library.” Extended abstract in Computer Vision in Digital Humanities Workshop at Digital Humanities 2017. ([link](#))
- Hessel, Jack, Alexandra Schofield, Lillian Lee, and David Mimno. “What do Vegans do in their Spare Time? Latent Interest Detection in Multi-Community Networks.” NIPS 2015 Networks Workshop. ([link](#))
- Hessel, Jack, Nicolas Saava, and Michael J Wilber. “Image Representations and New Domains in Neural Image Captioning.” EMNLP 2015 Vision/Language Workshop. ([link](#))
- Albright, Evan, Jack Hessel, Nao Hiranuma, Cody Wang, and Sherri Goings. “A Comparative Analysis of Popular Phylogenetic Reconstruction Algorithms.” MICS 2014. ([link](#))
- Under the supervision of Professor Kilian Weinberger, contributed to a parallelized/GPU support vector machine package (tinyurl.com/wu-svm) that accompanies Tyree et al.’s “Parallel Support Vector Machines in Practice.” ([link](#))

Work and Service Experience

- **Carleton College** Northfield, MN
Visiting Lecturer of Computer Science Spring 2019
– Teaching Natural Language Processing (CS 322) and Mathematics of Computer Science (CS 202).
- **Google** Mountain View, California
Research Intern on Natural Language Understanding team with Bo Pang Summer 2018
– Using Speech Signals to Caption Instructional Videos (in preparation for submission).
- **Facebook** Menlo Park, California
Research Intern on Core Data Science Team with Amit Bahl Summer 2017
– Personalized language modeling; cross-modal retrieval
- **Twitter** New York, New York
Research Intern on Cortex Team with Clément Farabet Summer 2016
– Large-scale/multimodal node embeddings; language modeling; engagement prediction
- **Conference Reviewing**
Program Committees
– ACL (2016, 2017, 2018*); NAACL (2018); EMNLP (2017, 2018*); EACL (2017); AAI (2017); ICWSM (2018) (* indicates top reviewer award)
– Workshops: Black in AI @ NIPS (2017, 2018); Student Research Workshop @ NAACL (2018); Noisy User-generated Text @ EMNLP (2018).
- **Cornell University** Ithaca, New York
Teaching Assistant
Language and Information (CS4300) [SP2016]; Machine Learning for Data Science (CS4786) [SP15]; Intro to Computer Graphics (CS4620) [FA14]; at Carleton College: Life in the Age of Networks Grader (CS108) [FA11]
- **Cornell University Public Service Center** Ithaca, New York
Computer Science Education Volunteer Fall 2014
- **Washington University** St. Louis, Missouri
NSF REU with Kilian Weinberger Summer 2013

Awards, Grants, and Invited Talks

DHRX Graduate Speaker Invited Talk @ University of Pittsburgh	2018
Nvidia Hardware Grant with David Mimno	2015
Cornell CS Outstanding TA Award	2015
Phi Beta Kappa, Beta of Minnesota	2014
Sigma Xi Inductee, Carleton College Chapter	2014
MICS Best Paper: <i>A Comparative Analysis of Phylogenetic Reconstruction Algorithms</i>	2014
MICS Programming Contest 2nd place (60 teams)	2014
Carleton College Dean's List	2011 and 2013 Academic Years
Carleton College Academic Excellence Travel Grant	2012 and 2013

Technical Skills

- *Machine Learning Skills:* Various machine learning/statistical toolkits/languages (e.g. sklearn, neural network libraries (e.g., Keras, PyTorch), R, etc.). Experience working with large, multi-faceted datasets.
- *Development Skills:* Object-oriented programming (Python, Java, C++), parallel programming experience on CPUs/Nvidia GPUs, experience with various languages, development environments, version control systems, operating systems.