Alan Ritter

Assistant Professor
Computer Science and Engineering
The Ohio State University

CONTACT
INFORMATION

E-mail:	ritter.1492@osu.edu
Office:	595 Dreese Labs
Phone:	(360) 820-1090
WWW:	http://aritter.github.io/
Google Scholar Profile:	https://scholar.google.com/citations?user=unXtH3IAAAAJ

RESEARCH
INTERESTS

Natural Language Processing, Information Extraction, Machine Learning, Social Media Analysis

EDUCATION

University of Washington, Seattle, WA USA

Ph.D. in Computer Science & Engineering

- Thesis Topic: Information Extraction in Social Media
- Fall 2007 - Summer 2013

Western Washington University, Bellingham, WA USA

B.S./M.S., Computer Science, December 2006

- Overall GPA: 4.00

PROFESSIONAL
EXPERIENCE

The Ohio State University, Columbus OH USA
Assistant Professor - Computer Science and Engineering   **August 2014 - ...**

Microsoft Research, Redmond WA USA
Consultant - Natural Language Processing Group   **August 2014 - ...**
Continuing collaboration on data-driven conversation [EMNLP 2011a] that was started during my summer internship in 2009 (`http://research.microsoft.com/en-us/projects/convo/`).

Carnegie Mellon University, Pittsburgh PA USA
Postdoctoral Fellow - Machine Learning Department   **August 2013 - August 2014**
Proposed a new method for weakly supervised event extraction based on expectation regularization. Initiated a collaboration with researchers at US-CERT to automatically extract cybersecurity events reported on social media, including denial of service attacks, data breaches and account hijacking [WWW 2015]. Co-developed a joint model of semantic and visual word senses [CVPR 2015]. Investigated extraction of structured user profiles and major life events from user-generated text on social media [ACL 2014, EMNLP 2014].
Supervisor: Tom Mitchell

Microsoft Research, Redmond WA USA
Intern - Natural Language Processing Group   **June 2009 - September 2009**
Investigated conversations on Twitter. Crawled Twitter to gather a corpus of conversations. Designed a generative model of dialogue, and conducted experiments to demonstrate the feasibility of unsupervised modeling of dialogue acts in new media. Proposed data-driven response generation, identified and addressed initial challenges, developed a system and conducted experiments. This work resulted in publication at [NAACL 2010] and [EMNLP 2011a], and led to a major new research initiative (`http://research.microsoft.com/en-us/projects/convo/`)
Supervisors: Colin Cherry, Bill Dolan

Intern - Knowledge Tools Group (Machine Learning Department)   **June 2008 - August 2008**
Investigated new methods for Smart Selection in the file browser domain. Proposed the idea of learning from indirect feedback in interactive machine learning. Implemented a prototype *smart file browser*, and conducted user studies. This work resulted in an award paper at [IUI 2009].
Supervisor: Sumit Basu

University of Washington, Seattle WA USA

Research Assistant   **April 2007 - August 2013**
Supervisors: Oren Etzioni, Mausam

Microsoft, Redmond WA USA

Software Design Engineer   **January 2007 - March 2007**
Windows Media DRM group.

Naval Research Laboratory, Marine Meteorology Division, Monterey, CA USA

Intern - Data Assimilation Group   **June 2006 - August 2006**
Used TAU (Tuning and Analysis Utilities) to instrument, profile, analyze, and improve scalability of research and operational NRL Data Assimilation Fortran/MPI code. Taught a class on automatic instrumentation of parallel programs for NRL scientists. Presented a Seminar on scalability enhancements to NAVDAS.
Supervisor: William F. Campbell

The NetBSD Project

Google "Summer of Code"   **June 2005 - August 2005**
Ported FreeBSD's NDIS Compatibility Layer to NetBSD.
http://www.netbsd.org/foundation/press/soc-summary.html
Mentor: Philip A. Nelson

AWARDS   Facebook Fellowship Finalist (2012)

Best Student Paper Award for *Learning to Generalize for Complex Selection Tasks* at IUI (2009)

NDSEG Fellowship (2008)

GRANTS   **CRII: III: Learning to Extract Events from Knowledge Base Revisions**, U.S. NSF
9/1/2015-9/1/2017
Amount: $151,299
PI: Alan Ritter

Extracting a Realtime Cybersecurity Knowledge Graph from Text, IARPA
Leidos Subcontract
Currently in Contract Negotiations
Requested Amount: $710,150
Ohio State PI: Alan Ritter

TEACHING   **The Ohio State University**, Columbus OH USA
Instructor - Web Information Extraction   **September 2014 - December 2014**
http://aritter.github.io/courses/5539_fall15.html

The Ohio State University, Columbus OH USA
Instructor - 5522: Survey of AI II: Advanced Techniques   **January 2015 - May 2015**
http://aritter.github.io/courses/5522.html

The Ohio State University, Columbus OH USA
Instructor - IE and NLP for the Social Web **September 2014 - December 2014**
`http://aritter.github.io/courses/5539.html`

THESIS   *Young-Bum Kim*   PhD, Feb 2015
COMMITTEES   Natural Language Technologies for Low-Resource Languages (Advisor: Benjamin Snyder)
                  University of Wisconsin

PATENTS   US Patent Application US20110010669
                  "Items Selection Via Automatic Generalization"

INVITED TALKS   "Weakly Supervised Information Extraction for the Social Web"
                  Machine Learning Seminar, Purdue University, December 2015
                  Statistics Department, Ohio State University, October 2015
                  School of Computer Science, Carnegie Mellon University, April 2015
                  CLIP, University of Maryland, March 2015

                  "Information Extraction from Noisy Text"
                  Clunch, University of Pennsylvania, September 2014

                  "Extracting Knowledge from Informal Text"
                  University of Pittsburgh, January 2014
                  Machine Learning Lunch, Carnegie Mellon University, October 2013
                  IEEE Intelligence and Security Informatics, June 2013
                  Toyota Technological Institute at Chicago, April 2013
                  Microsoft Research, April 2013
                  University of Texas at Dallas, March 2013
                  The Ohio State University, March 2013
                  Machine Learning and Friends Lunch, University of Massachusetts Amherst, March 2013
                  Human Language Technology Center of Excellence, March 2013

                  "Modeling Conversations in Social Media"
                  Microsoft Research, September 2011

                  "Extracting a Calendar from Twitter"
                  Pacific Northwest National Laboratory, January 2013
                  Proteus Group, New York University, September 2012
                  Wavii, April 2012
                  Facebook, March 2012
                  Google Research, September 2011
                  Yahoo! Labs, September 2011
                  Twitter, May 2011
                  Information Sciences Institute, University of Southern California, February 2011

                  "Finding Contradictions in Text Using Functions"
                  Boeing Research
                  February 2008

PRESS   "Forget today's news: Zapaday will break future news"
                        http://thenextweb.com/media/2012/05/01/forget-todays-news-zapaday-will-break-future-news/
                        http://bit.ly/1Ndfnic
                        The Next Web
                        May 2012

                        "'Hello, computer!' UW prof and students search outside the box"
                        http://www.geekwire.com/2011/computer-uw-prof-students-search-box/
                        GeekWire
                        November 2011

ACADEMIC SERVICE Organizer
                  ACL Workshop on Noisy User-Generated Text (WNUT 2015)
                  Sentiment Analysis in Twitter Shared Task (SemEval 2013,2014,2015,2016)
                  Named Entity Recognition in Twitter Shared Task (WNUT 2015)

                  Area Chair
                  ACL 2014 (NLP for the web and social media)
                  NAACL 2015 (Information Extraction and Question Answering)
                  EMNLP 2016 (Information Extraction, Information Retrieval and Question Answering)

                  Steering Committee
                  SemEval 2016

                  Journal Reviewing
                  ACM Computing Surveys (2014), TACL (2013,2014,2015,2016), Computational Linguistics (2013,2015,2016),
                  JAIR (2012), TOIS (2012), TKDE (2014,2016), JMLR MLOSS (2013), Journal of Natural Lan-
                  guage Engineering (2014)

                  Program Committee
                  EMNLP (2010,2011,2012,2013,2014,2015), ACL (2012,2013,2015,2016), NAACL-HLT (2012,2013,2016),
                  CoNLL (2013,2014,2015), AAAI (2012,2015), EACL (2012,2014), Coling (2014), ICWSM (2012),
                  LREC (2012), IJCAI (2011), *SEM (2013), WWW (2014,2015,2016), CIKM (2014)

                  U.S. Government Service
                  Independent Reviewer of PNNL's Social Media project for the Department of Energy (March 2015)

JOURNAL PAPERS   Wei Xu, Alan Ritter, Chris Callison-Burch, William B. Dolan and Yangfeng Ji
                  "Extracting Lexically Divergent Paraphrases from Twitter"
                  Proceedings of TACL 2014

                  Alan Ritter, Luke Zettlemoyer, Mausam and Oren Etzioni
                  "Modeling Missing Data in Distant Supervision for Information Extraction"
                  Proceedings of TACL 2013

CONFERENCE   Xinlei Chen, Alan Ritter, Abhinav Gupta and Tom Mitchell
PAPERS   "Unsupervised Discovery of Semantic and Visual Senses"
                  Proceedings of CVPR 2015

                  Alan Ritter, Evan Wright William Casey and Tom Mitchell
                  "Weakly Supervised Extraction of Computer Security Events from Twitter"
                  Proceedings of WWW 2015

"Never Ending Learning"
Tom Mitchell, William Cohen, Estevam Hruschka, Partha Talukdar, Justin Betteridge, Andrew Carlson, Bhavana Dalvi, Matt Gardner, Bryan Kisiel, Jayant Krishnmurthy, Ni Lao, Kathryn Mazaitis, Tahir Mohammad, Ndapa Nakashole, Emmanouil Antonios Platanios, Alan Ritter, Mehdi Samadi, Burr Settles, Richard Wang, Derry Wijaya, Abhinav Gupta, Xinlei Chen, Abulhair Saparov, Malcolm Greaves and Joel Welling
Proceedings of AAAI 2015

Jiwei Li, Alan Ritter, Claire Cardie and Eduard Hovy
"Major Life Event Extraction from Twitter based on Congratulations/Condolences Speech Acts"
Proceedings of EMNLP 2014

Jiwei Li, Alan Ritter and Eduard Hovy
"Weakly Supervised User Profile Extraction from Twitter"
Proceedings of ACL 2014

Justin Betteridge, Alan Ritter and Tom Mitchell
"Assuming Facts Are Expressed More Than Once"
Proceedings of FLAIRS 2014

Leon Derczynski, Alan Ritter, Sam Clark and Kalina Bontcheva
"Twitter Part-of-Speech Tagging for All: Overcoming Sparse and Noisy Data"
Proceedings of RANLP 2013

Alan Ritter, Mausam, Oren Etzioni, Sam Clark
"Open Domain Event Extraction from Twitter"
Proceedings of KDD 2012

Wei Xu, Alan Ritter, Bill Dolan, Ralph Grishman, Colin Cherry
"Paraphrasing for Style"
Proceedings of Coling 2012

Alan Ritter, Sam Clark, Mausam, Oren Etzioni
"Named Entity Recognition in Tweets: An Experimental Study"
Proceedings of EMNLP 2011

Alan Ritter, Colin Cherry, Bill Dolan
"Data-Driven Response Generation in Social Media"
Proceedings of EMNLP 2011

Alan Ritter, Mausam and Oren Etzioni
"A Latent Dirichlet Allocation Method for Selectional Preferences"
Proceedings of ACL 2010

Alan Ritter, Colin Cherry and Bill Dolan
"Unsupervised Modeling of Twitter Conversations"
Proceedings of HLT-NAACL 2010

Alan Ritter and Sumit Basu
"Learning to Generalize for Complex Selection Tasks"
Best Student Paper Award
Proceedings of IUI 2009

Alan Ritter, Doug Downey, Stephen Soderland, and Oren Etzioni

"It's a Contradiction – No, It's Not: A Case Study using Functional Relations"
Proceedings of EMNLP 2008

Workshop Papers Ting-Hao K. Huang, Walter S. Lasecki, Alan L. Ritter, Jeffrey P. Bigham
"Combining Non-Expert and Expert Crowd Work to Convert Web APIs to Dialog Systems" Work-in-Progress paper in the Proceeding of Conference on Human Computation & Crowdsourcing (HCOMP 2014)

Walter S. Lasecki, Alan, Ritter and Jeffrey P. Bigham
"Powering Spoken Language Interactions With the Crowd."
Proceedings of the CHI Workshop on Designing Speech and Language Interactions (DSLI 2014), 2014.

Wei Xu, Alan Ritter, Ralph Grishman
"Gathering and Generating Paraphrases from Twitter with Application to Normalization"
ACL 2013 Workshop on Building and Using Comparable Corpora

Wei Xu, Ralph Grishman, Adam Meyers, Alan Ritter
"A Preliminary Study of Tweet Summarization using Information Extraction"
Proceedings of NAACL 2013 Workshop on Language Analysis in Social Media

Sina Jafarpour and Chris Burges, Alan Ritter
"Filter, Rank, and Transfer the Knowledge: Learning to Chat"
NIPS Workshop on Advances in Ranking, Vancouver, Canada, 2009

Alan Ritter, Stephen Soderland and Oren Etzioni
"What is this Anyway? Automatic Hypernym Discovery"
Proceedings of the AAAI 2009 Spring Symposium on Learning by Reading and Learning to Read