Assistant Professor

Computer Science and Engineering

The Ohio State University

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RESEARCH INTERESTS

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

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

AWARDS

Facebook Fellowship Finalist (2012)

EMNLP Best Reviewer Awards (2011,2012)

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

NDSEG Fellowship (2008)

WWU Outstanding Graduating Senior in Computer Science (2006)

Professional Experience The Ohio State University, Columbus OH USA

Assistant Professor - Computer Science and Engineering

August 2014 - ...

Carnegie Mellon University, Pittsburgh PA USA

Postdoctoral Fellow - Machine Learning Department

Supervisor: Tom Mitchell

August 2013 - August 2014

Microsoft Research, Redmond WA USA

Consultant - Natural Language Processing Group

July 2013 - August 2013

Microsoft Research, Redmond WA USA

 $Intern\ -\ Natural\ Language\ Processing\ Group$ 

June 2009 - September 2009

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. Investigated data-driven response generation in Social media. This work resulted in publication at [NAACL 2010] and [EMNLP 2011a].

Supervisors: Colin Cherry, Bill Dolan

## Microsoft Research, Redmond WA USA

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 to Generalize 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

Software Engineer

April 2007 - September 2007

Implemented updates and maintained TextRunner, an Open IE based search engine. Developed a web-scale hypernym extractor.

Supervisors: Stephen Soderland, Oren Etzioni

## Microsoft, Redmond WA USA

Software Design Engineer Windows Media DRM group.

January 2007 - March 2007

# 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" Grant

June 2005 - August 2005

Ported FreeBSD's NDIS Compatibility Layer to NetBSD.

http://cvsweb.netbsd.org/bsdweb.cgi/src/sys/dev/if\_ndis/?only\_with\_tag=MAIN

Mentor: Philip A. Nelson

# Grants

# CRII: III: Learning to Extract Events from Knowledge Base Revisions, U.S. NSF

(Recommended for funding)

9/1/2015-9/1/2017 Amount: \$151,299 PI: Alan Ritter

# TEACHING EXPERIENCE

# 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

# University of Washington, Seattle WA USA

Teaching Assistant - Machine Learning Jan 2009 - March 2009, Jan 2011 - March 2011 http://www.cs.washington.edu/education/courses/cse446/

Helped to design and grade homework assignments, answered student questions one-on-one, prepared and presented an hour long lecture on Neural Networks.

Supervisor: Oren Etzioni

Patents US Patent Application US20110010669

"Items Selection Via Automatic Generalization"

INVITED TALKS "Weakly Supervised Information Extraction for the Social Web"

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

"Forget today's news: Zapaday will break future news"

http://thenextweb.com/media/2012/05/01/forget-todays-news-zapaday-will-break-future-news/

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

Press

Tutorials

"Latent Variable Models of Lexical Semantics" Yahoo! Machine Learning Seminar (@ UW) January 2012

SERVICE

#### U.S. Government Service

Independent Reviewer of PNNL's Social Media project for the Department of Energy (March 2015)

#### Area Chair

ACL 2014 (NLP for the web and social media), NAACL 2015 (Information Extraction and Question Answering)

# Steering Committee

SemEval 2016

### Co-Organizer

ACL Workshop on NLP in Noisy Text (2015), Sentiment Analysis in Twitter Shared Task (SemEval 2013, 2014, 2015)

### Session Chair

EMNLP 2012 (Social Media), NAACL 2013 (Social Media), ACL 2014 (Social Media), AAAI 2015 (Natural Language Processing)

## Journal Reviewing

ACM Computing Surveys (2014), TACL (2013,2014,2015), Computational Linguistics (2013), JAIR (2012), TOIS (2012), TKDE (2014), JMLR MLOSS (2013), Journal of Natural Language Engineering (2014)

## Program Committee

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

### Workshop Reviewing

WebDB 2015, "@NLP can u tag #user\_generated\_content?!" (LREC 2012), Workshop on Language in Social Media (2011, 2012, 2013, 2014), Workshop on Analyzing Microtext (2011,2013), Workshop on Relational Models of Semantics (2011), Workshop on Information Extraction and Knowledge Acquisition (2011), ACL Student Research Workshop (2012), AKBC-WEKEX (2012,2013), CIKM workshop on Politics, Elections and Data (2012,2013), TextGraphs 2013, Workshop on Latent Attribute Prediction in Social Media (ACL 2014)

### **PUBLICATIONS**

Xinlei Chen, Alan Ritter, Abhinav Gupta and Tom Mitchell "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, Mal-

colm Greaves and Joel Welling Proceedings of AAAI 2015

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

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

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