Steven R. Wilson

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EDUCATION

University of Michigan, Ann Arbor, Michigan

Ph.D., Computer Science & Engineering   Jan 2019
- Thesis Title: Natural Language Processing for Personal Values and Human Activities
- Advisor: Rada Mihalcea

M.S., Computer Science & Engineering   Apr 2015

Taylor University, Upland, Indiana

B.S., Computer Science/Systems   May 2013
- Summa cum laude
- Minor in psychology
- Concentration in Intelligent Systems

RESEARCH EXPERIENCE

Institute for Language, Cognition, and Computation, University of Edinburgh

Postdoctoral Research Associate, SMASH Lab   Sep 2019 – Present
- Supervisor: Walid Magdy
- Research areas: Natural language processing, Computational Social Science, Machine Learning

Artificial Intelligence Lab, University of Michigan

Postdoctoral Research Fellow, LIT Group   Feb 2019 – Jul 2019
- Supervisor: Rada Mihalcea
- Research areas: Natural language processing, Computational Social Science, Machine Learning

Graduate Student Research Assistant, LIT Group   Jan 2014 – Jan 2019
- Projects: Various projects using natural language processing for computational social science problems related to personal values, human behavior, optimism, and more.
- Supervisor: Rada Mihalcea
- Research areas: Natural language processing, Computational Social Science, Machine Learning

Automated Imagery Analysis Group, SPAWAR Systems Center Pacific

Research Intern   Jun 2013 – Aug 2013
- Project: Automated detection of oil spills from Synthetic Aperture Radar imagery
- Supervisor: Bryan Bagnall
- Research areas: Computer Vision, Machine Learning

Advanced Concepts Lab, Lockheed Martin Advanced Technology Laboratories

College Student Technical Specialist   Jun 2012 – Aug 2012
- Project: Proprietary research
- Supervisor: Ricardo Correa
- Research areas: Cybersecurity, Mobile Devices, Malware

Taylor University Research, Taylor University

Research Intern, Department of Computer Science & Engineering   May 2011 – Jan 2012
- Project: Proprietary research for Lockheed Martin
- Supervisors: Stefan Brandle, Arthur White
- Research areas: Cybersecurity, Operating Systems

PUBLICATIONS

PEER-REVIEWED

1) Shen, Y.,* Wilson, S. R.,* & Mihalcea, R. Measuring Personal Values in Cross-Cultural User-Generated Content. *In Proceedings of the International Conference on Social Informatics.* Doha, Qatar, Nov 2019.

2) Wilson, S. R., & Mihalcea, R. Predicting Human Activities from User-Generated Content. *In Proceedings of the Annual Meeting of the Association of Computational Linguistics.* Florence, Italy, Jul 2019.

3) Zhang, L., Wilson, S. R., & Mihalcea, R. Multi-Label Transfer Learning for Multi-Relational Semantic Similarity. *In Proceedings of the Eighth Joint Conference on Lexical and Computational Semantics.* Minneapolis, USA, Jun 2019.

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* Equal Contributions

4) Wilson, S. R., Shen, Y., & Mihalcea, R. Building and Validating Hierarchical Lexicons with a Case Study on Personal Values.† *In Proceedings of the International Conference on Social Informatics*. St. Petersburg, Russia, Sep 2018.

5) Li, Y., Mihalcea, R., and Wilson, S. R.. Text-based Detection and Understanding of Changes in Mental Health. *In Proceedings of the International Conference on Social Informatics*. St. Petersburg, Russia, Sep 2018.

6) Wilson, S. R., & Mihalcea, R. Measuring Semantic Relations between Human Activities. *In Proceedings of the International Joint Conference on Natural Language Processing*. Taipei, Taiwan, Nov 2017.

7) Wilson, S. R., Mihalcea, R., Boyd, R.L., & Pennebaker, J. W. Disentangling Topic Models: A Cross-cultural Analysis of Personal Values through Words. *In the Workshop on Natural Language Processing and Computational Social Science at EMNLP*. Austin, TX, Nov 2016.

8) Ruan, X., Wilson, S. R., & Mihalcea, R. Finding Optimistic and Pessimistic Users on Twitter. *In Proceedings of the Annual Meeting of the Association of Computational Linguistics*. Berlin, Germany, Aug 2016.

9) Wilson, S. R., Mihalcea, R., Boyd, R.L., & Pennebaker, J. W. Cultural Influences on the Measurement of Personal Values through Words. *In Proceedings of the 2016 AAAI Spring Symposium Series*. Stanford, CA, Mar 2016.

10) Boyd, R. L.,* Wilson, S. R.,* Pennebaker, J. W., Kosinski, M., Stillwell, D., & Mihalcea, R. Values in Words: Using Language to Evaluate and Understand Personal Values. *In Proceedings of the Ninth AAAI International Conference on Web and Social Media*, Oxford, UK, May 2015.

E-PRINT/OTHER

1) Wendlandt, L., Wilson, S. R., Ignat, O., Welch, C., Zhang, L., Wang, M., Deng, J., and Mihalcea, R. Entity and Event Extraction from Scratch Using Minimal Training Data. *Text Analysis Conference*. Nov 2018.

2) Zhang, L., Wilson, S. R., and Mihalcea, R. Sequential Network Transfer: Adapting Sentence Embeddings to Human Activities and Beyond. *arXiv:1804.07835 [cs.CL]*. Apr 2018.

3) Pappas, K., Wilson, S. R., and Mihalcea, R. Stateology: State-Level Interactive Charting of Language, Feelings, and Values. *arXiv:1612.06685 [cs.CL]*. Dec 2016.

4) Radev, D., Zhang, R., Wilson, S. R., Van Assche, D., Gubert, H. S., Krivokapic, A., Dong, M., Wu, C., Bondera, S., Brandl, L., and Dohnmann, J. Cruficorm: Solving Crosswords with Natural Langauge Processing. *arXiv:1611.02360 [cs.CL]*. Nov 2016.

ACADEMIC HONORS & AWARDS	Michigan Artificial Intelligence Lab Symposium	2018

ACADEMIC HONORS & AWARDS

Michigan Artificial Intelligence Lab Symposium   2018
"Greatest Societal Impact"
Awarded for poster presentation: "Clustering Human Activity Expressions"

Best Paper Award   2018
International Conference on Social Informatics
Awarded for the paper: "Building and Validating Hierarchical Lexicons with a Case Study on Personal Values"

Rackham Graduate School Conference Travel Grant   2015 – 2018
University of Michigan, Ann Arbor, MI
Provides monetary allowance for academic conference travel. Awarded Yearly.

Michigan Institute for Data Science Annual Symposium   2016
"Most Likely Societal Impact"
Awarded for poster presentation: "Disentangling Topic Models: A Cross-cultural Analysis of Personal Values through Words"

Outstanding Computer Science Graduate   2013
Taylor University, Upland, IN
Awarded to one student each year, selected by the faculty of Computer Science & Engineering.

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† Best Paper Award
* Equal Contributions

President Scholarship, Taylor University, Upland, IN   2009 – 2013
Highest tier of merit based academic scholarship awarded by the university.

AP Scholar with Distinction   2009
The College Board
For receiving an average score of at least 3.5 on all Advanced Placement exams taken, and scores of 3 or higher on five or more of these exams.

PROFESSIONAL ACTIVITIES

SERVICE

Organizer   Sep 2015 – Jul 2019
University of Michigan Natural Language Processing Reading Group

Program Committee Member
AAAI 2020, CoNLL 2019, IJCNLP-EMNLP 2019, SocialNLP @ IJCAI 2019, ACL 2019, NLP+CSS @ NAACL 2019, NAACL 2019, AAAI 2019, EMNLP 2018, LREC 2018, EMNLP 2017, NLP+CSS @ ACL 2017, COLING 2016, WWW 2016, EMNLP 2015

Invited Reviewer
Applied Sciences 2019, Computer Speech and Language 2017, Psychological Methods 2017, JASIST 2017

Volunteering
Instructor at CS Kickstart 2017, Student Volunteer at EMNLP 2016, Session Facilitator at Girls Encoded 2016, Volunteer at Girls Encoded 2015, Session Facilitator at Xplore Engineering 2014 & 2015

Secondary Reviewer
Journal of Artificial Intelligence Research 2016

MEMBERSHIPS

The Association for Computational Linguistics   2015 – Present

The Association for the Advancement of Artificial Intelligence   2015 – 2018

CONFERENCES/WORKSHOPS ATTENDED

EurNLP Summit   2019

Annual Meeting of the Association for Computational Linguistics   2019

Joint Conference on Lexical and Computational Semantics   2019

Annual Conference of the North American Chapter of the ACL   2019
  • Workshop on Natural Language Processing and Computational Social Science

Midwest Speech and Language Days   2019

International Conference on Social Informatics   2018

International Conference on Computational Social Science   2018

Midwest Speech and Language Days   2018

International Joint Conference in Natural Language Processing   2017

Midwest Speech and Language Days   2017

Conference on Empirical Methods in Natural Language Processing   2016
  • Workshop on Natural Language Processing and Computational Social Science
  • Workshop on Natural Language Processing for Social Media

International Conference on Computational Social Science   2016

Midwest Speech and Language Days   2016

AAAI Spring Symposium Series   2016
  • Observational Studies in Social Media and Other Human Generated Content

AAAI International Conference on Web and Social Media   2015
  • Workshop on Standards and Practices in Large-Scale Social Media Research

	Midwest Speech and Language Days	2015
	AAAI International Conference on Web and Social Media	2014

TEACHING ACTIVITIES	**Data Science Summer School**, École Polytechnique and DATAIA Institute	
	Tutorial Organizer	Jun 2019
	Fundamentals of Text Analysis for User Generated Content	

Department of Electrical Engineering and Computer Science, University of Michigan

Guest Lecturer	Winters, 2017 – 2019
EECS 486: Information Retrieval, *Lecture title: "Topic Modeling"*	
Graduate Student Instructor	Fall 2017
EECS 595: Natural Language Processing	
Graduate Student Instructor	Fall 2013
EECS 280: Programming and Introductory Data Structures	

The Center for Research in Teaching and Learning, University of Michigan

Practice Teaching Facilitator	Winter 2016 – Fall 2017
Engineering Teaching Consultant	Fall 2015 – Winter 2017
Graduate Student Instructor Training - Workshop Facilitator	Fall 2015 – Winter 2017

Department of Computer Science & Engineering, Taylor University

Labratory Assistant	Spring 2012
COS 121: Foundations of Computer Science II	

STUDENT ADVISING	**Yiting Shen**, B.S.E. '18, M.S. '19, University of Michigan	May 2017 – May 2019
	Evaluation and Weighting of a Values Lexicon	
	Amy Rechkemmer, B.S.E. '18, University of Michigan	Dec 2017 – May 2019
	Content Analysis of Urban and Rural Twitter Users	
	Li Zhang, B.S.E. '18, University of Michigan	Sep 2017 – Dec 2018
	Language Understanding and Semantic Similarity of Text	
	Anamaria Cuza, B.S.E. '21, University of Michigan	Dec 2017 – Dec 2018
	Exploration of Bias in NLP Data Annotation	
	Zheng Wu, M.S. '17, University of Michigan	Jan 2016 – May 2017
	Comparison of Topic Modeling Methods	
	Renhan Zhang, M.S. '16, University of Michigan	Jun 2015 – Jan 2016
	A System for the Collection of Psycholinguistic Social Media Data	
	Xianzhi Ruan, B.S.E. '16, University of Michigan	May 2015 – Jan 2016
	Finding and Predicting Optimistic and Pessimistic Users on Twitter	

NON-ARCHIVAL PRESENTATIONS	**TALKS**	
	Social Data Science Interest Group	Oct 2019
	The Alan Turing Institute, London, UK	
	"The Semantic Space of Human Activities"	
	Information Retrieval Seminar	Oct 2019
	University of Glasgow, Glasgow, UK	
	"The Semantic Space of Human Activities"	
	#UMTweetCon2019	May 2019
	Institute for Social Research , University of Michigan, Ann Arbor, MI	
	"Predicting Human Activities from User-Generated Content"	
	Artificial Intelligence Lab Honors Competition	Oct 2017
	University of Michigan, Ann Arbor, MI	
	"Measuring Semantic Relations between Human Activities"	
	International Conference on Computational Social Science	Jun 2016
	Northwestern University, Evanston, IL	
	"Cultural Influences on the Measurement of Psychological Phenomena: Value-behavior Relationships in India and the United States"	

Midwest Speech and Language Days   May 2016
University of Indiana, Bloomington
"Cultural Influences on the Measurement of Personal Values through Words"

Artificial Intelligence Lab Mini-Symposium   May 2015
University of Michigan, Ann Arbor, MI
"Values in Words: Using Language to Evaluate and Understand Personal Values"

Midwest Speech and Language Days   May 2015
Toyota Institute of Technology, Chicago, IL
"Values in Words: Using Language to Evaluate and Understand Personal Values"

Michigan College of Engineering "Recruit at Home" Event   Oct 2014
College of Natural & Applied Science, Taylor University, Upland, IN
"Navigating Graduate School"
Sponsored by the University of Michigan College of Engineering

POSTERS

Midwest Speech and Language Days   May 2019
Toyota Institute of Technology, Chicago, IL
"Clustering and Predicting Human Activities"

University of Michigan Artificial Intelligence Lab Symposium   Nov 2018
University of Michigan, Ann Arbor, MI
"Clustering Human Activity Expressions"

International Conference on Computational Social Science   Jul 2018
Northwestern University, Evanston, IL
"Relating Human Activities with Phrasal Embeddings"

International Conference on Computational Social Science   Jul 2018
Northwestern University, Evanston, IL
"Crowd-Powered Concept Sorting for Lexicon Creation"

Midwest Speech and Language Days   May 2017
Toyota Institute of Technology, Chicago, IL
"Measuring Semantic Relations between Human Activities"

University of Michigan Data Science Symposium   Nov 2016
University of Michigan, Ann Arbor, MI
"Disentangling Topic Models: A Cross-cultural Analysis of Personal Values through Words"

Society for Personality and Social Psychology   Feb 2015
Long Beach, CA
"Language and values: Understanding human values with language and language categories."

SYSTEMS   **Language and Information Technology research group**, University of Michigan
ADMINISTRATION   Systems Administrator for Lab Network   Jun 2014 – Nov 2018
Software Skills: *Ubuntu, NIS, Apache, mySQL*

[*CV Compiled on 2019-10-15*]