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

Artificial Intelligence Lab, University of Michigan

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

Graduate Student Research Assistant, LIT Lab   Jan 2014 – Jan 2019
- Supervisor: Rada Mihalcea
- Research areas: Natural language processing, Computational Social Science

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 Labs

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) Hennig, F. & Wilson, S. R.. Diachronic Embeddings for People in the News. *Workshop on NLP and Computational Social Science at EMNLP*. Virtual, Nov 2020.

2) Li, J.,[*] Longinos, G.,[*] Wilson, S. R., & Magdy, W. Emoji and Self-Identity in Twitter Bios. *Workshop on NLP and Computational Social Science at EMNLP*. Virtual, Nov 2020.

3) Wilson, S. R., Magdy, W., McGillivray, B., & Tyson, G. Embedding Structured Dictionary Definitions. *Workshop on Insights from Negative Results in NLP at EMNLP*. Virtual, Nov 2020.

4) Wilson, S. R., Magdy, W., McGillivray, B., & Tyson, G. Analyzing Temporal Relationships between Trending Terms on Twitter and Urban Dictionary Activity. *In Proceedings of the Web Science Conference*. Virtual, Jul 2020.

5) Bahgat, M., Wilson, S. R., & Magdy, W. Towards Using Word Embedding Vector Space for Better Cohort Analysis. *In Proceedings of the International Conference on Web and Social Media*. Virtual, Jun 2020.

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[*] Equal Contributions

6) Wilson, S. R., Magdy, W., McGillivray, B., Garimella, K., & Tyson, G. Urban Dictionary Embeddings for Slang NLP Applications. *In Proceedings of the Language Resources and Evaluation Conference*. Virtual, May 2020.

7) Rechkemmer, A., Wilson, S. R., & Mihalcea, R. Small Town or Metropolis? Analyzing the Relationship between Population Size and Language. *In Proceedings of the Language Resources and Evaluation Conference*. Virtual, May 2020.

8) 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.

9) 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.

10) 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.

11) 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.

12) 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.

13) 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.

14) 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.

15) 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.

16) 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.

17) 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) Burdick, L., Wang, M., Ignat, O., Wilson, S. R., Zhang, Y., Wei, Y., Mihalcea, R., and Deng, J. Building a Flexible Knowledge Graph to Capture Real-World Events. *Text Analysis Conference*. Nov 2019.

2) Burdick, 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.

3) 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.

4) 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.

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† Best Paper Award
* Equal Contributions

5) 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

"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.

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

Co-organizer/Co-founder · Mar 2020 – Present
University of Edinburgh Computational Social Science Reading Group

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

Program Committee Member
EACL 2021, AAAI 2021, NLP+CSS @ EMNLP 2020, CoNLL 2020, EMNLP 2020, W-NUT @ EMNLP 2020, GeBNLP 2020 @ COLING 2020, LREC 2020, 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
Online Social Networks and Media 2020, Frontiers in AI 2020, Information 2020, Applied Sciences 2019, Computer Speech and Language 2017, Psychological Methods 2017, Journal of the Association for Information Science and Technology 2017

Volunteering
Virtual conference volunteer at ACL 2020, Post-acceptance mentor for ACL Student Research Workshop 2020, 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
CIKM 2020, ACM Hypertext 2020, JAIR 2016

MEMBERSHIPS

The Association for Computational Linguistics · 2015 – Present

The Association for the Advancement of Artificial Intelligence · 2015 – 2018

CONFERENCES ATTENDED

Main Conferences
EMNLP 2020, WebSci 2020, ACL 2020, SocInfo 2019, ACL 2019, *SEM 2019, NAACL 2019, SocInfo 2018, IC2S2 2018, IJCNLP 2017, EMNLP 2016, IC2S2 2016, MSLD 2016, ICWSM 2015, ICWSM 2014

Workshops
NLP+CSS @ EMNLP 2020, INSIGHTS @ EMNLP 2020, EurNLP 2019, NLP+CSS @ NAACL 2019, Midwest Speech and Language Days (MSLD) 2019, MSLD 2018, MSLD 2017, SocialNLP @ EMNLP2016, NLP+CSS @ EMNLP2016, AAAI Spring Symposium: Observational Studies in Social Media and Other Human Generated Content 2016, Workshop on Standards and Practices in Large-Scale Social Media Research @ ICWSM 2015, MSLD 2015

Summer/Winter Schools
2nd HUMAINT Winter School on Fairness, Accountability, and Transparency in AI 2020, École Polytechnique and DATAIA Institute Data Science Summer School 2019

TEACHING	**School of Informatics**, University of Edinburgh
	University Teacher (Instructor) · Fall 2020 – Winter 2021
	INFR11145: Text Technologies for Data Science
	Guest Lecturer · Nov 2019
	INFR11145: Text Technologies for Data Science, *Lecture title: "Comparing Text Corpora"*

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

STUDENT ADVISING	**Chenxin Diao**, B.Sc. '21, University of Edinburgh Apr 2020 – Present
	Rumor Verification on Social Media

Tia Deviyani, B.Sc. '21, University of Edinburgh   Jul 2020 – Present
Semantic Word Categorization for English Slang

Felix Hennig, M.Sc. '20, University of Edinburgh   Mar 2020 – Sep 2020
Discovering Temporal Trends in Entity Representations from News Text

Faisal Alothman, M.Sc. '20, University of Edinburgh   Mar 2020 – Sep 2020
Assessing Social Situations with NLP models

Jinhang Li, M.Sc. '20, University of Edinburgh   Mar 2020 – Sep 2020
Analyzing the Relationship between Emoji Use and Self-Identity on Twitter

Giorgos Longinos, M.Sc. '20, University of Edinburgh   Mar 2020 – Sep 2020
Analyzing the Relationship between Emoji Use and Self-Identity on Twitter

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

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 LIT Lab Network   Jun 2014 – Nov 2018
Software Skills: *Ubuntu, NIS, Apache, mySQL*

[CV Compiled on 2020-12-01]