

Michael Miller Yoder

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EDUCATION	Carnegie Mellon University , Pittsburgh, PA <i>Ph.D.</i> , Language and Information Technologies 2021 Advisor: Carolyn P. Rosé Thesis: “Computational models of identity presentation in language” PDF <i>M.S.</i> , Language Technologies 2017 Goshen College , Goshen, IN <i>B.A.</i> , Computer Science 2013 Minors: English, International Studies
RESEARCH INTERESTS	Natural language processing, computational social science, hate speech, language and identity, sociolinguistics, discourse analysis, digital humanities
CONFERENCE & WORKSHOP PUBLICATIONS	A Weakly Supervised Classifier and Dataset of White Supremacist Language Michael Miller Yoder, Ahmad Diab, David West Brown, Kathleen M. Carley <i>Proceedings of the Association for Computational Linguistics (ACL)</i> . 2023. Identity Construction in a Misogynist Incels Forum Michael Miller Yoder, Chloe Perry, David West Brown, Kathleen M. Carley, Meredith Pruden <i>Proceedings of the Workshop on Online Abuse and Harms (WOAH)</i> . 2023. Online to Offline Crossover of White Supremacist Propaganda Ahmad Diab, Bolor-Erdene Jagdagdorj, Lynnette Hui Xian Ng, Yu-Ru Lin, Michael Miller Yoder <i>International Workshop on Cyber Social Threats (CySoc), Companion Proceedings of the ACM Web Conference (WWW)</i> , 2023. How Hate Speech Varies by Target Identity: A Computational Analysis Michael Miller Yoder, Lynnette Hui Xian Ng, David West Brown, Kathleen M. Carley <i>Proceedings of the Conference on Computational Natural Language Learning (CoNLL)</i> , 2022. PDF. FanfictionNLP: A Text Processing Pipeline for Fanfiction Michael Miller Yoder, Sopan Khosla, Qinlan Shen, Aakanksha Naik, Huiming Jin, Hariharan Muralidharan, Carolyn P. Rosé <i>Proceedings of the Workshop on Narrative Understanding</i> , 2021. PDF. Modeling Unstructured Data: Teachers as Learners and Designers of Technology- enhanced Artificial Intelligence Curriculum Cansu Tatar, Michael Miller Yoder, Madeleine Coven, Kenia Wiedemann, Jie Chao, William Finzer, Shiyan Jiang, Carolyn P. Rosé <i>Proceedings of the International Society of the Learning Sciences</i> , 2021. PDF. Phans, Stans and Cishets: Self-presentation Effects on Content Propagation in Tumblr Michael Miller Yoder, Qinlan Shen, Yansen Wang, Alex Coda, Yunseok Jang, Yale Song, Kapil Thadani, Carolyn P. Rosé <i>Proceedings of the ACM Conference on Web Science (WebSci)</i> , 2020. PDF.

Perceptions of Censorship and Moderation Bias in Political Debate Forums
Qinlan Shen, Michael Miller Yoder, Yohan Jo, Carolyn P. Rosé
Proceedings of the International AAAI Conference on Web and Social Media (ICWSM), 2018. PDF.

Roles and Success in Wikipedia Talk Pages: Identifying Latent Patterns of Behavior
Keith Maki, Michael Miller Yoder, Yohan Jo, Carolyn P. Rosé
Proceedings of the International Joint Conference on Natural Language Processing (IJCNLP), 2017. PDF.
Best Student Paper Award.

Modeling Dialogue Acts with Content Word Filtering and Speaker Preferences
Yohan Jo, Michael Miller Yoder, Hyeju Jang, Carolyn P. Rosé
Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP), 2017. PDF.

Code-Switching as a Social Act: The Case of Arabic Wikipedia Talk Pages
Michael Miller Yoder, Shruti Rijhwani, Carolyn P. Rosé, Lori Levin
Proceedings of the Workshop on Natural Language Processing and Computational Social Science (NLP+CSS), 2017. PDF.

Metaphor Detection with Topic Transition, Emotion and Cognition in Context
Hyeju Jang, Yohan Jo, Qinlan Shen, Michael Miller, Shane Moon, Carolyn P. Rosé
Proceedings of the Association for Computational Linguistics (ACL), 2016. PDF.

JOURNAL
ARTICLES

An empirical analysis of high school students' practices of modelling with unstructured data
Shiyan Jiang, Amato Nocera, Cansu Tatar, Michael Miller Yoder, Jie Chao, Kenia Wiedemann, William Finzer, Carolyn P. Rosé
British Journal of Educational Technology, 1–20, 2022. HTML.

Unpacking a political icon: “Bike lanes” and orders of indexicality
Michael Miller Yoder, Barbara Johnstone
Discourse & Communication, 12(2), 192–208, 2018.

TEACHING

Computational Ethics for Natural Language Processing HTML
Spring 2020
Carnegie Mellon University
Pittsburgh, PA
Teaching assistant for newly developed NLP ethics course. Gave guest lectures, developed homeworks, and graded coursework.

Applied Machine Learning
Spring 2019
Carnegie Mellon University
Pittsburgh, PA
Teaching assistant for a hands-on machine learning course for students across disciplines (computer science and outside computer science). Gave guest lectures, advised students in office hours, and graded coursework.

Introduction to Artificial Intelligence
Spring 2013
Goshen College
Goshen, IN
Selected as a tutor for introductory artificial intelligence course. Assisted students one-on-one with AI concepts and coursework.

WHITEPAPERS &
DEMONSTRATIONS

The Relationship Between Antisemitism and COVID-19 Conspiracy on Twitter

Grace Garner, Madeleine McGrann, Maja Lynn, Rachel Kranson,
Michael Miller Yoder, Daniel Klug
Whitepaper, Collaboratory Against Hate, 2022. PDF.

Research Needs for Countering Extremist Hate

Michael Miller Yoder, Hana Habib
Whitepaper, Collaboratory Against Hate, 2022. PDF.

StoryQ: A Web-Based Machine Learning and Text Mining Tool for K-12 Students

Jie Chao, Bill Finzer, Carolyn P. Rosé, Shiyan Jiang, Michael Miller Yoder,
James Fiocco, Chas Murray, Cansu Tatar, Kenia Wiedemann
SIGCSE 2022: Proceedings of the 53rd ACM Technical Symposium on Computer Science Education V. 2, 1178, 2022.

CONFERENCE
PRESENTATIONS

The Relationship Between Antisemitism and COVID-19 Conspiracies on Twitter

Grace Garner, Madeleine McGrann, Daniel Klug, Rachel Kranson,
Michael Miller Yoder
International Communication Association Conference, Toronto, Canada, 2023.

The Spatiotemporal Reach of Hate Narratives

Ahmad Diab, Michael Miller Yoder, Yu-Ru Lin
Eradicate Hate Global Summit 2022 Poster Session, Pittsburgh, PA, 2022.

The Relationship Between Antisemitism and COVID-19 Conspiracy on Twitter

Grace Garner, Madeleine McGrann, Maja Lynn, Rachel Kranson, Daniel Klug,
Michael Miller Yoder
Eradicate Hate Global Summit 2022 Poster Session, Pittsburgh, PA, 2022.

**“Everyone is gay and nothing hurts”:
the presentation of queer relationships in fanfiction**

Michael Miller Yoder, Luke Breitfeller, Carolyn P. Rosé
Association for Computers and the Humanities, Pittsburgh, PA, 2019.

Ron the Death Eater: plotting characterization from canon to fanfiction

Michael Miller Yoder, Qinlan Shen, James Fiocco, Carolyn P. Rosé
Society for Text & Discourse, New York, NY, 2019.

Identity and interaction on Tumblr

Michael Miller Yoder, Qinlan Shen, Yansen Wang, Alex Coda, Yunseok Jang, Yale
Song, Kapil Thadani, Carolyn P. Rosé
Student Research Symposium
Language Technologies Institute, Carnegie Mellon University, 2019.
Best Poster Award.

Linguistic liminality: Tamazight, Arabic and French in Guigou, Morocco

Michael Miller
Student Research Symposium, Goshen College, 2013.
Audience Choice Award.

INVITED TALKS &
PANELS

Computational approaches to identities and language

A.W. Mellon Digital Humanities Workshop, Pittsburgh, PA, 2023.

Beyond a hate speech binary

Social Cybersecurity Working Group (virtual), 2022.

Computational models for social good: Beyond bias and representation
(panel)

Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation (SBP-BRiMS), Pittsburgh, PA, 2022.

Creating a resource directory for crisis *(panel)*

Eradicate Hate Global Summit, Pittsburgh, PA, 2022.

Detecting hate speech with natural language processing

IDeaS Summer Institute, Carnegie Mellon University, Pittsburgh, PA, 2022.

Computational models of identity presentation in language

Department of Linguistics, University of Pittsburgh, Pittsburgh, PA, 2020.

PROFESSIONAL
EXPERIENCE

Postdoctoral Fellow

2022–present

Carnegie Mellon University
Pittsburgh, PA

Researcher with the Collaboratory Against Hate, an interdisciplinary initiative of Carnegie Mellon University and the University of Pittsburgh. Developing new methods for tracking and detecting hate speech in online contexts, incorporating insights from the social sciences. Advised by Prof. Kathleen M. Carley in the Software and Societal Systems Department and Prof. David West Brown in the Department of English.

Graduate Research Assistant

2015–2021

Carnegie Mellon University
Pittsburgh, PA

Apply computational models of discourse to study social meaning in language, largely using social media datasets. Advised by Prof. Carolyn P. Rosé in the Language Technologies Institute.

Software Engineering Intern

2019

Yahoo Research/Tumblr
New York, NY

Detected communities of Tumblr users from social network structure. Explored community-specific language use. Advised by Dr. Kapil Thadani.

Research Programmer/Analyst

2015

Carnegie Mellon University
Pittsburgh, PA

Designed and implemented neuroimaging database to support machine learning research. Advised by Prof. Timothy Verstynen in the Department of Psychology.

**Software Developer &
IT Administrator**

2014

GSAREH

Austin, TX area

Developed applications to recognize and map named entities in English and Arabic articles and social media. Managed software development and IT administration of a small GIS startup named Geospatial Applied Research Experts House.

HONORS &
AWARDS

Best Poster Award

2019

Student Research Symposium

Language Technologies Institute, Carnegie Mellon University

Best Student Paper Award

2017

International Joint Conference on Natural Language Processing (IJCNLP)

NSF Graduate Research Fellowship

2015–2018

Awarded national fellowship with a focus area in natural language processing.

Audience Choice Award

2013

Student Research Symposium, Goshen College

President's Leadership Award Scholarship, Goshen College

2009–2013

Awarded top merit scholarship for leadership in academic studies.

ACADEMIC
SERVICE

Organizing:

- Collaboratory Against Hate Workshop on Practitioner Research Needs, 2022
- Eradicate Hate Global Summit 2022 Poster Session

Committees:

- Co-Director Search Committee, Collaboratory Against Hate, 2023
- Diversity, Equity, and Inclusion Committee, CMU Language Technologies Institute, 2020-2021
- Anti-Racism Working Group, CMU School of Computer Science Dean's PhD Advisory Committee, 2020-2021

Reviewing (NLP and Computational Social Science):

- *ACM Journal on Computing & Sustainable Societies*, 2023
- *EPJ Data Science*, 2023
- *Computational and Mathematical Organization Theory*, 2022
- USEC 2022
- EMNLP 2022 Computational Social Science track
- ACL Rolling Review (2022-)
- ACL 2021 (**Outstanding Reviewer Award**), 2023
- CoNLL 2020, 2022
- Bridging Human-Computer Interaction and NLP Workshop (HCI+NLP) 2021
- NAACL, AACL and ACL Student Research Workshops 2020, 2021, 2022
- Human and Machine-in-the-Loop Evaluation and Learning Strategies Workshop (HAMLETS @ NeurIPS) 2020

Reviewing (Digital Humanities):

- *Between Invention and Audience: DocuScope and the Rhetorical Approach to Corpus Analysis* (Studies in Corpus Linguistics, John Benjamins Press), 2022
- *Humanities* journal, special issue on fanfiction, 2022
- Association for Computers and the Humanities (ACH) 2021
- Digital Humanities (DH) 2020

INTERNATIONAL
EXPERIENCE

Bicycle Tourist

2013–2014

Paraguay, South America to Indiana, USA

Bicycled with a group of three over 10,000 miles from South America to the United States on an 11-month self-supported journey. Learned conversational Spanish and gained familiarity with Latin American culture.

Researcher and Service Worker

2012

Meknes and Guigou, Morocco

Studied Moroccan language and culture for 12 weeks while living with host families in urban and rural settings. Researched code-switching among Tamazight, French, Colloquial and Modern Standard Arabic speakers in the Middle Atlas Mountains.

Youth Camp Volunteer

2011

West Bank, Palestine & Israel

Studied and practiced Levantine and Modern Standard Arabic for 9 weeks. Participated in history and learning tours of the Israeli-Palestinian conflict while living with a Palestinian friend's family. Facilitated crafts and games for Palestinian youth.