

KAYLA DUSKIN

kuskin@uw.edu

www.linkedin.com/in/kayla-duskin

Seattle, WA

My research experience and interest span computational social science, online misinformation, social network analysis, machine learning and natural language processing. My current work focuses on the relationship between platform governance, including algorithmic choices and AI deployment, and problematic online information environments.

EDUCATION

PhD	University of Washington Information Science Advised by Jevin West & Emma Spiro	2021 - Present
BS	Western Washington University B.S. Applied Mathematics, B.A. Spanish Minor in Computer Science Graduated Magna Cum Laude	2016

ACADEMIC RESEARCH EXPERIENCE

National Science Foundation (NSF) Graduate Research Fellow	2022 - Present
<ul style="list-style-type: none">Conducting empirical algorithmic audits to explore the relationship between recommendation algorithms and the spread of misinformation in online political echo chambers.	
Center for an Informed Public (CIP), University of Washington Research Assistant	2021 - 2022
<ul style="list-style-type: none">Collecting and analyzing Twitter data surrounding the correction of false narratives during the 2022 U.S. presidential election.Quantifying and characterizing the spread of corrections in comparison to the spread of false narratives.	
Western Washington University, Undergraduate Research Assistant (Advised by Perry Fizzano)	2017
<ul style="list-style-type: none">Designed and empirically tested heuristic algorithms for assigning airplane internet traffic to satellites by conducting simulation experiments.	

NON-ACADEMIC EMPLOYMENT

Pacific Northwest National Laboratory, Seattle, WA Data Scientist & Machine Learning Researcher	2017 - 2021
<ul style="list-style-type: none">Data science researcher on several projects related to online misinformation narratives, including DARPA's SocialSim program. Applied graph neural networks, data visualization, natural language processing, and means testing.Deep learning researcher on several projects including text detection and optical character recognition, controllable text generation, and AI-enabled human-machine teaming.	

- Developed curriculum for and taught a series of workshops on topics in deep learning, presented 10+ workshops to a total of 300+ participants.
- Project Manager for a multi-year effort in applying computer vision methods to understand topical trends, user behavior, and adversarial activity in social media data. Stewarded the acquisition of an additional 500k in project funding from project sponsor.
- Co-PI for a multi-year effort in applying large scale language models and question answering methods to unstructured text in order to aid nuclear non-proliferation analyst decision making.
- PI for an internally funded collaboration with the Fred Hutchinson Cancer Research Center to apply deep learning to the classification of abbreviated MRI images for breast cancer screening.

PEER REVIEWED PUBLICATIONS

* : equal contribution

Kayla Duskin, Joseph Schafer, Alexandros Efstratiou, Jevin West and Emma Spiro. (2025) "Content Recommendation on Twitter During the 2022 U.S. Midterm Election". *To appear in Proceedings of the International AAAI Conference on Web and Social Media (ICWSM '26)*.

Joseph Schafer*, **Kayla Duskin***, Stephen Prochaska, Morgan Wack, Anna Beers, Lia Bozarth, Taylor Agajanian, Mike Caulfield, Emma Spiro, and Kate Starbird (2024). "ElectionRumors2022: A Dataset of Election Rumors on Twitter During the 2022 US Midterms" *Journal of Quantitative Description: Digital Media*, 5.

Kayla Duskin, Joseph Schafer, Jevin West and Emma Spiro. (2024) "Echo Chambers in the Age of Algorithms: An Audit of Twitter's Friend Recommender System". *16th ACM Web Science Conference 2024*.

Stephen Prochaska, **Kayla Duskin**, Zarine Kharazian, Carly Minow, Stephanie Blucker, Sylvie Venuto, Jevin D. West, and Kate Starbird. 2023. Mobilizing Manufactured Reality: How Participatory Disinformation Shaped Deep Stories to Catalyze Action during the 2020 US Presidential Election. *Proceedings of the ACM on Human-Computer Interaction* 7.CSCW1 (2023): 1-39.

Papers in progress (preprints and under review)

Morgan Wack*, **Kayla Duskin***, and Damian Hodel (2024). "Political Fact-Checking Efforts Are Constrained by Deficiencies in Coverage, Speed, and Reach." *Under Review*. <http://arxiv.org/abs/2412.13280>.

Kayla Duskin, Jevin West, and Joseph Bak-Coleman (2023). "Suspensions of prominent accounts minimally impact platform engagement." *Preprint*. <https://osf.io/preprints/socarxiv/x4jau>

CONFERENCE POSTERS AND PRESENTATIONS

Kayla Duskin*, Kristen Engel*, Emma Spiro. (2023). Midterm Candidate Participation in False and Misleading Election Discourse on Twitter. Oral Presentation at *International Conference on Computational Social Science (IC2S2)*.

Kayla Duskin, Jevin West, Emma Spiro. (2023). The Role of Friend Recommendation Algorithms in Shaping Informational Ecosystems Online. Poster Presentation at *NetSci Conference*.

Kayla Duskin, Jevin West, Emma Spiro. (2023). The Role of Friend Suggestion Algorithms on Personal Networks Online. Oral Presentation at *Sunbelt Network Conference (INSNA)*.

Kayla Duskin, Svitlana Volkova. (2020). Using Large-Scale Language Models to Understand Psycho-Linguistic Dimensions of Phishing. Poster presented at *Women in Machine Learning Workshop*.

Kayla Duskin, Ellyn Ayton, Maria Glenski, Svitlana Volkova. (2020). Who Started It? An Analysis of Bot-Initiated Content in the White Helmets Disinformation Campaign. Poster presented at *Western Washington Workshop on Data-Driven Discovery*.

Kayla Duskin, Svitlana Volkova. (2020). Understanding Psycho-Linguistic Dimensions of Phishing Using Large-Scale Language Models. Poster presented at *West Coast NLP Summit*.

Kayla Duskin, Leslie Blaha, Jonathon Cree, Brett Jeferson, Johnathan Suter. (2018). Generalizability of temporal convolutional neural networks for inter-subject EEG classification. Poster presented at *Women in Machine Learning Workshop*.

Katherine Porterfield, Leslie M. Blaha, Jonathan Suter, **Kayla Duskin**, Johnathan Cree, Gianluca Longoni, Jesse M. Johns, Gerges Dib. (2018). A deep learning approach to training a brain activity-based trial-by-trial classifier for rapid serial visual presentation imagery. *CogSci*.

WORKSHOP PAPERS

Kayla Duskin*, Shivam Sharma, Ji Young Yun, Emily Saldanha, and Dustin Arendt. (2021) "Evaluating and Explaining Natural Language Generation with GenX." In *Proceedings of the Second Workshop on Data Science with Human in the Loop: Language Advances*

Jeremiah Rounds*, Michael J. Henry, and **Kayla Duskin** (2021) "Anti-Adversarial Input with Self-Ensemble Model Transformations". *Computer Vision and Pattern Recognition (CVPR) Workshop on Adversarial Machine Learning in Real-World Computer Vision Systems and Online Challenges*

Jeremiah Rounds*, Addie Kingsland, Michael J. Henry, **Kayla Duskin** (2020). Probing for Artifacts: Detecting Imagenet Model Evasions. *Computer Vision and Pattern Recognition (CVPR) Workshop on Adversarial Machine Learning in Computer Vision*.

HONORS AND AWARDS

PhD Symposium Best Paper Award, WebSci Conference

2024

Prosocial Ranking Challenge Challenge Winner (Top 3) 2024
 FeedSpan: A bridging-based prosocial feed reranking algorithm
 Luke Thorburn, Soham De, **Kayla Duskin**, Hongfan Lu, Smitha Milli, Martin Saveski

NSF Graduate Research Fellowship 2022 - present
Center for an Informed Public (CIP) Fellowship 2021-2022
Student Commencement Class Speaker 2016
 Western Washington University [[Video](#) (begins 22:39)]
[Computer Science / Math Scholars Program](#) 2012 – 2016
College of Sciences and Technology 2013
 Alumni Association Leader Scholarship
Kaiser-Borsari College of Sciences and Technology Scholar Award 2013

TEACHING EXPERIENCE

Teaching Assistant UW
 Informatics Project Capstone (INFO 491) Spring 2025, 2025
 Informatics Project Capstone (INFO 490) Winter 2024, 2025
Guest Lecturer UW
 Social Network Analysis (IMT 571) Spring 2023

PROFESSIONAL SERVICE

Reviewer (WWW) 2024
Reviewer (FAccT) 2025
Reviewer (ICWSM) 2022 - Present
Chair UW iSchool Doctoral Student Association 2024 - Present
Secretary UW iSchool Doctoral Student Association 2022-2024

VOLUNTEERING AND MENTORSHIP

Pacific Northwest National Lab, Seattle, WA 2019 - 2020
 STEM Ambassador

- Developed interactive educational material on deep learning topics to be shared at educational community events to promote young people’s interest in STEM topic

Pacific Northwest National Lab, Seattle, WA 2019 - 2020
 Mentor

- Mentor to one master’s level and two bachelor’s level data science interns

Pacific Northwest National Lab, Seattle, WA 2019 - 2020

SPARK Leadership Team Member

- One of three leaders of the SPARK employee resource group, which aims to promote gender equity in STEM

Western Washington University, Remote

2018 – 2020

Early Career Professional Mentor

- Mentor to two undergrad students in the Computer Science/Math Scholars Program

PROFESSIONAL MEMBERSHIP

Association for Computing Machinery (ACM)

International Network for Social Network Analysis (INSNA)