Andrew L. Beers

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https://github.com/AndrewBeers, Google Scholar

Education

University of Washington, PhD Student in Human Centered Design & Engineering (2019-)
Brown University, Bachelor of Arts in Environmental Studies (2015)

Research

Center for an Informed Public (CIP) - Seattle, WA, Research Assistant (2020-present)

- Created visualizations, wrote blog posts, and conducted analyses on datasets of 1B+ social media posts for the Election Integrity Partnership, which aims to deter misinformation on voting in the 2020 election.
- Leading a qualitative research project using grounded theory on a Twitter dataset of COVID19 misinformation, and an additional project on voting misinformation 'superspreaders.'

MedGIFT, University of Applied Science in Western Switzerland (HES-SO) - Sierre, Switzerland, Summer Intern (Summer 2018)

- Developed algorithms to generate high-resolution synthetic pathology images for prostate cancer data as part of a summer exchange program with our lab in MGH.

Quantitative Tumor Imaging Lab, Center for Machine Learning @ the MGH/HST Martinos Center for Biomedical Imaging - Boston, MA, Research Assistant (2016-2017), Programmer (2017-19)

- Developed open-source software packages (DeepNeuro, 3D Slicer) for both clinical and academic users.
- Created in-house machine learning pipelines for diagnosis, prognosis, and treatment planning for brain tumors. Facilitate the usage of this pipeline by clinicians testing new treatments in ongoing clinical trials.
- Designed curricula and gave lectures for machine learning classes at MIT and the Martinos Center.

Brown University Center for Environmental Studies
Providence, RI, Research Assistant (2014-15)

- Made a website to visualize 134 years of iceberg data using Javascript, and d3.js. Modeled iceberg observer behavior to determine unrecorded changes in observers in the historical record.

American Civil Liberties Union
Boston, MA, Researcher (2014)

- Contributed to a rebuttal for an expert witness in an upcoming state-level reproductive justice case, and critiqued statistical methods in the opposition's supporting epidemiological literature.

Selected Written Work

Beers, A., Nguyên S., Spiro E. S. & Starbird, K. (2021). "**Rejecting Science with Science: Boundary-Work in Anti-Mask Twitter Reply Threads During COVID-19.**" Selected Papers of Internet Research from the Association of Internet Researchers (AoIR).

Beers, A., Nguyên S., Sioson M., Mayanja M., Ionescu M., Spiro E. S. & Starbird, K. (2021). "**The Firestarting Troll, and Designing for Abusability.**" Information Credibility & Alternative Realities in Troubled Democracies, Workshop at the International Conference on Web and Social Media (ICWSM).

Center for an Informed Public, Digital Forensic Research Lab, Graphika, and Stanford Internet Observatory. "**The Long Fuse: Misinformation and the 2020 Election**," 2021.
https://stacks.stanford.edu/file/druid:tr171zs0069/EIP-Final-Report.pdf.

Beers, A. et al. (2020, first author, not credited due to security concerns). "**Repeat Offenders: Voting Misinformation on Twitter in the 2020 United States Election**." Election Integrity Partnership.
https://www.eipartnership.net/rapid-response/repeat-offenders

Beers, A., Haughey, M. M., Arif, A., & Starbird, K. (2020). **Examining the digital toolsets of journalists reporting on disinformation. Computation + Journalism**. https://cj2020.northeastern.edu/research-papers/

Beers, A., Brown, J., Chang, K., Hoebel, K., Patel, J., Ly, K. I., Tolaney, S. M., Brastianos, P., Rosen, B., Gerstner, E. R., & Kalpathy-Cramer, J. (2020). **DeepNeuro: An open-source deep learning toolbox for neuroimaging**. Neuroinformatics. https://doi.org/10.1007/s12021-020-09477-5

Chang, K., **Beers, A. (first co-author),** L., Bai, H. X., Brown, J. M., Ly, K. I., Li, X., Senders, J. T., Kavouridis, V. K., Boaro, A., Su, C., Bi, W. L., Rapalino, O., Liao, W., Shen, Q., Zhou, H., Xiao, B., Wang, Y., Zhang, P. J., Pinho, M. C., … Kalpathy-Cramer, J. (2019). **Automatic assessment of glioma burden: A deep learning algorithm for fully automated volumetric and bidimensional measurement**. Neuro-Oncology, 21(11), 1412–1422. https://doi.org/10.1093/neuonc/noz106

Beers, A., Chang, K., Brown, J., Gerstner, E., Rosen, B., & Kalpathy-Cramer, J. (2018). **Sequential neural networks for biologically informed glioma segmentation.** Medical Imaging 2018: Image Processing, 10574, 1057433. https://doi.org/10.1117/12.2293941

Talks

"Flexible Networks: How What You Measure Changes What You See." Workshop on Understanding Misinformation and Disinformation at Tufts T-TRIPOD Institute (Fall 2021).

"Communicating and Miscommunicating Network Graphs: A Case Study." Networked Justice Satellite, Networks Conference (Summer 2021).

'State of Our Vote,' City Club of Portland (Spring 2021) – Part of a panel with Shemia Fagan, Oregon Secretary of State, and Paul Gronke, professor of Political Science at Reed College.

Teaching

Designing Trustworthy Information Systems (Fall 2021) – Teaching assistant with Dr. Kate Starbird. Facilitated discussions for a 20+ person seminar, graded weekly responses and essays for a class focuses on mis- and disinformation on the internet.

Introduction to Deep Learning and Medical Imaging (2018-2019) – Two series of classes teaching deep learning with Python as applied to medical imaging. The first iteration was aimed towards .NET programmers at MGH, and the second towards more experienced Python programmers among the clinicians, professors, and researchers of MGH and Harvard Medical School. Some class lectures found at https://bit.ly/2xTXDXd..

Open-Source Software

Shared Engagement Projections - https://github.com/uwcip-research/shared-engagement-projection
- Software for creating social network visualizations of very large social engagement datasets. Can be tuned according to different types of communities, and run via Docker containers.

The Russian Ad Explorer & Datasets - https://github.com/russian-ad-explorer/russian-ad-datasets
- An online visualization and preprocessed datasets of malicious political Facebook and Instagram ads purchased by the Russian Internet Research Agency (IRA).

DeepNeuro - https://github.com/QTIM-Lab/DeepNeuro
- Open-source deep learning Python package for medical imaging. DeepNeuro is an open-source, extensible framework for all of QTIM Lab's deep learning projects.

Awards

Honorable Mention - 2020, National Science Foundation Graduate Research Fellowship Program
Best Research Project - 2015 Institute at Brown for Environment and Society.
- Awarded for work on the Grand Banks Iceberg Mapper.

Library Innovation Prize - 2015, Brown University

- Awarded for work on the Grand Banks Iceberg Mapper.

Magna Cum Laude - 2015, Brown University

Press

“Behind the Tweet That Became the Rallying Cry for the Insurrection.” Mother Jones, 2021.
- https://www.motherjones.com/politics/2021/11/behind-the-tweet-that-became-the-rallying-cry-for-the-insurrection/

“Facebook Takes on Superspreaders.” New York Times, 2021.
- https://www.nytimes.com/2021/05/28/technology/facebook-superspreaders-misinformation.html

“The unseen machine pushing Trump’s social media megaphone into overdrive.” Washington Post, 2020.
- https://www.washingtonpost.com/technology/2020/10/30/trump-twitter-domestic-disinformation/

“These Oklahoma Politicians Gave Misinformation a Boost.” Oklahoma Watch, 2020.
- https://oklahomawatch.org/2020/10/30/these-oklahoma-politicians-gave-misinformation-a-boost/

“Meet the researchers and activists fighting misinformation Tuesday.” Protocol, 2020.
- https://www.protocol.com/election-day-2020-misinfomation-disinformation

“Somehow This Wild Hoax Bill Gates Anti-Vaxx Video Doesn't Violate YouTube's Policies.” Vice, 2020.
- https://www.vice.com/en/article/4aydjg/somehow-this-wild-hoax-bill-gates-anti-vaxx-video-doesnt-violate-youtubes-policies

“AI Beats Experts At Diagnosing Childhood Disease.” OPB, 2018.
- https://www.opb.org/news/article/artificial-intelligence-ai-childhood-eye-disease/

“A story in time: Icebergs & Climate Change.” Rhode Island NSF Epscor, 2015.
- http://web.uri.edu/rinsfepscor/2015/06/15/a-story-in-time-icebergs-climate-change/.

“At Loyola HS: ‘Empathy boxes’ to raise awareness of autism.” Angelus News, 2014.
- https://angelusnews.com/content/at-loyola-hs-empathy-boxes-to-raise-awareness-of-autism