

Bradley J. Wheeler

University of Pittsburgh
School of Computing and Information
Pittsburgh, PA 15213
bjw71@pitt.edu
<https://sites.pitt.edu/~bjw71>

EDUCATION

University of Pittsburgh Ph.D. in Information Science	Pittsburgh, PA Expected: Spring 2024
University of Pittsburgh B.S. in Computer Science	Pittsburgh, PA 1999–2003

RESEARCH EXPERIENCE

University of Pittsburgh, School of Medicine, Psychiatry Graduate Student Researcher	Pittsburgh, PA 2021–Present
University of Pittsburgh, School of Public Health, Epidemiology Graduate Student Researcher	Pittsburgh, PA 2019–2021
University of Pittsburgh, Center for Social and Urban Research Graduate Student Researcher	Pittsburgh, PA 2019–2020
UPMC Enterprises, Department of Machine Learning Machine Learning Engineer (Intern)	Pittsburgh, PA 2019
University of Pittsburgh, School of Medicine, Clinical Pathology Graduate Student Researcher	Pittsburgh, PA 2018

INDUSTRY EXPERIENCE

York Risk Services Data Scientist (Contract)	Pittsburgh, PA 2018
Investment Company Institute Senior Analyst/Developer	Washington, D.C. 2015–2017
PNC Bank Senior Software Engineer	Pittsburgh, PA 2012–2015
M*Modal Research Programmer	Pittsburgh, PA 2011–2012
PNC Bank Business Analyst (Contract)	Pittsburgh, PA 2010–2011
Access Data Software Engineer	Pittsburgh, PA 2006–2010
University of Pittsburgh Research Programmer	Pittsburgh, PA 2004–2006

TEACHING EXPERIENCE

University of Pittsburgh, INFSCI 2591: Algorithm Design Teaching Assistant	Pittsburgh, PA Spring 2021
University of Pittsburgh, INFSCI 2591: Algorithm Design Teaching Assistant	Pittsburgh, PA Fall 2020

AWARDS AND HONORS

Outstanding poster Center for Sleep and Circadian Science Research Day	2022
Second place poster Pathology Informatics Summit	2022

JOURNAL PUBLICATIONS

1. Korentzelos D, Baloda V, Jung Y, **Wheeler B**, Shurin MR, and Wheeler SE. COVID-19 mRNA Vaccines May Cause False Reactivity in Some Serologic Laboratory Tests, Including Rapid Plasma Reagin Tests. *American Journal of Clinical Pathology* 2022; 158:162–6
2. Wallace M, McTeague L, Graves J, Kissel N, Tortora C, **Wheeler B**, and Iyengar S. Quantifying Distances between Non-elliptical Clusters to Enhance the Identification of Meaningful Emotional Reactivity Subtypes. *Data Science in Science* 2022; 1:34–59
3. Cook N, Xu L, Hegazy S, **Wheeler BJ**, Anderson AR, Critelli N, Yost M, McElroy AK, Shurin MR, and Wheeler SE. Multiplex assessment of SARS-CoV-2 antibodies improves assay sensitivity and correlation with neutralizing antibodies. *Clinical biochemistry* 2021; 97:54–61
4. Elkhadrawi M, Stevens BA, **Wheeler BJ**, Akcakaya M, and Wheeler S. Machine learning classification of false-positive human immunodeficiency virus screening results. *Journal of Pathology Informatics* 2021; 12:46
5. Lopez-Nunez O, Srivastava P, **Wheeler BJ**, Oakes N, Thomas H, Nowalk A, and Wheeler SE. Pediatric decision limits for serologic screening of Lyme disease. *Clinical Biochemistry* 2021; 91:59–62
6. **Wheeler BJ** and Karimi HA. A semantically driven self-supervised algorithm for detecting anomalies in image sets. *Computer Vision and Image Understanding* 2021; 213:103279
7. Zilla M, **Wheeler BJ**, Keetch C, Mitchell G, McBreen J, Wells A, Shurin MR, Peck-Palmer O, and Wheeler SE. Variable performance in 6 commercial SARS-CoV-2 antibody assays may affect convalescent plasma and seroprevalence screening. *American Journal of Clinical Pathology* 2021; 155:343–53
8. Statz E, Wertz WJ, **Wheeler BJ**, Shurin MR, and Wheeler SE. New Syphilis Serology Testing Requires New Reporting Algorithms. *The Journal of Applied Laboratory Medicine* 2020; 5:601–4
9. **Wheeler BJ** and Karimi HA. Deep learning-enabled semantic inference of individual building damage magnitude from satellite images. *Algorithms* 2020; 13:195
10. **Wheeler BJ**, Syzdykbayev M, Karimi HA, Gurewitsch R, and Wang Y. Personalized accessible wayfinding for people with disabilities through standards and open geospatial platforms in smart cities. *Open Geospatial Data, Software and Standards* 2020; 5:1–15

INVITED TALKS

1. **Wheeler BJ**, Hasler BP, and Wallace ML. Untangling Correlations Between Positive Affect and Light and Activity Data Using Deep Learning. Sleep 2023
2. **Wheeler BJ**, Hasler BP, and Wallace ML. A Framework to Empirically Determine Optimal Parameters for use in Clinical Analyses of Temporal Sequences. The Center for Sleep and Circadian Science Research Day 2022

ABSTRACTS

1. **Wheeler BJ**, Hasler BP, and Wallace ML. Quantitatively Measuring Relationships of Nighttime Light Exposure and Activity with Next Day Affect. The Classification Society Annual Meeting 2023
2. **Wheeler BJ**, Hasler BP, and Wallace ML. Quantitatively Measuring Relationships of Nighttime Light Exposure and Activity with Next Day Affect. Pitt Department of Psychiatry Research Day 2023
3. **Wheeler BJ**, Hasler BP, and Wallace ML. Untangling Correlations Between Positive Affect and Light and Activity Data Using Deep Learning. Sleep 2023
4. **Wheeler BJ**, Guyette FM, Christian MG, and Wheeler SE. Machine learning classification of the need for point of care blood gas testing in ventilated patients transported by helicopter emergency medical services. Pathology Informatics Summit 2022
5. **Wheeler BJ**, Hasler BP, and Wallace ML. A Framework to Empirically Determine Optimal Parameters for use in Clinical Analyses of Temporal Sequences. The Center for Sleep and Circadian Science Research Day 2022
6. **Wheeler BJ** and Hwang SJ. Transparent Self-Supervised Learning for Anomaly Detection Decision Support in Medical Imaging. University of Pittsburgh Center for Research Computing, Advancing Research through Computing, Symposium 2021

CURRENT FUNDING

CARRS Pilot Study Grant. Human-Rodent Activity Data Translational Methods. Role-PI. 7/2022 - 7/2024.
Directs: \$50,000

CONSULTING

Health Rhythms	2022
Machine learning and statistical analysis	
CloudWorx LLC	2022
Machine learning system integration	

PROFESSIONAL SOCIETIES

The Computer Vision Foundation, 2019 –Present
Institute of Electrical and Electronics Engineers, 2022 –Present
IEEE Signal Processing Society, 2022 –Present
IEEE Computer Society, 2022 –Present

Association for Computing Machinery, 2022 –Present

Association for the Advancement of Artificial Intelligence, 2022 –Present

The Classification Society, 2023 –Present