Jamelle Watson-Daniels

RESUME — March 2024

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Education

Harvard University — Expected 2024
PhD in Applied Mathematics
Advisors: David C. Parkes (Harvard), Berk Ustun (UCSD)

Brown University — 2011 – 2016
BS in Physics, BA in Africana Studies

Research Areas: Applied Machine Learning, Algorithmic Fairness, Reliability, Alignment & Safety

Select Experience

Harvard University. Cambridge, MA — Sept 2018 – May 2024
PhD Researcher
Conduct independent research in applied Machine Learning. Initiate, design and execute novel computational experiments. Spearhead collaboration between 2 principal investigators. Present research in local meetings and international scientific conferences. Manage paper submission process (write, edit, redraft). Mentor >50 students + Equity, Diversity & Inclusion Chair for >400 students.

Google. Atlanta, GA — Summer 2023
PhD Research Intern
Lead research project drawing connections between state of the art methods and product issues. Distill and communicate research concepts to engineering team. Communicate results in the context of intended business goals. Execute independent research for first author publication.

Microsoft Research. Remote — Summer 2022
PhD Research Intern
Lead research project on a team of three Principal Researchers in the Fairness, Accountability, Transparency and Ethics (FATE) group. Design and program original experiments for a first author publication. Develop a mathematical and computational framework for evaluating the algorithmic fairness implications of flexibility in target variable choice. The framework supports early-intervention fairness testing during problem formulation long before model deployment.

Data for Black Lives. Cambridge, MA — Feb 2020 – Feb 2022
Director of Research
Lead the development and management of research initiatives with the leadership team, partner organizations and community members. Hire and manage associate level staff. Represent the organization on non-profit boards and consult large organizations on socially responsible Ai practices.

Weinberg Medical Physics. Rockville, MD — 2017 – 2018
Physicist
Connect fundamentals of low-field MRI to support building a prototype of a low-cost portable imaging option. Developed a Python software suite to enable hardware to function as a spectrometer.

Select Papers

Google Scholar

Computer Science (See CV for Full List)

1. Mysterious Projections: Multimodal LLMs Gain Domain-Specific Visual Capabilities (under review)
2. Predictive Churn with the Set of Good Models (under review)
3. Algorithmic Fairness and Color-blind Racism: Navigating the Intersection (under review)
4. Multi-Target Multiplicity: Flexibility and Fairness in Target Specification (FAccT)
5. Predictive Multiplicity in Probabilistic Classification (AAAI)
6. An Analysis of Emotions and the Prominence of Positivity in #BlackLivesMatter Tweets (PNAS)

More Info

Conference Reviewer: AAAI, NeurIPS, ICML, FAccT, ICLR
Select Awards: NSF Graduate Research Fellowship, Ford Foundation Predoctoral Fellowship