LAUREN M. CHAMBERS

Doctoral Research

Summer Internship

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EDUCATION

- 2021 Pres. University of California, Berkeley, Ph.D. in Information Science Advised by Prof. Deirdre Mulligan
- 2013 2017 **Yale University**, B.S. in Astrophysics and African American Studies Phi Beta Kappa, *magna cum laude*, with distinction in both majors

RESEARCH EXPERIENCE

Berkeley School of Information

A Taxonomy of Black Algorithmic Resistance

- Exploring how and why Black advocates resist algorithmic injustice; characterizing Black contributions to algorithmic resistance ideologies and tactics; engaging with critical algorithm studies and Black studies
- Designing a mixed-methodology study including analysis of interviews, policy documents, and multimedia
- Data in the Trenches: An Investigation of Advocacy Technologists
 - Studying public interest technologists who are housed within sociopolitical advocacy organizations
 - Designing a qualitative survey and interview study to identity (1) benefits and challenges that advocates undergo integrating technologists into workflows, and (2) roles where tech can be employed in service of advocacy goals

Center for Democracy & Technology

- Convening roundtable of public interest technologists and CTOs working in civil society
- Using the bigbang software package to explore inclusive practices among Internet standards organizations (blog)

Yale African American Studies Dept.

Undergraduate Thesis 2016 – 2017

2021 - Pres.

2023

A Different Kind of Dark Energy: Placing Race and Gender in Physics I Advisor: Hazel Carby

- Analyzing physical and astronomical theory through the lens of critical race theory and feminist theory (talk)

Harvard Center for Astrophysics & Yale Astronomy Dept.Undergraduate Thesis2016 – 2017Understanding Gas-Phase Ammonia (NH3) Chemistry in Proto-Planetary Disks | Advisors: Karin Öberg & Hector Arce

- Optimizing a numerical astrochemical model to investigate NH₃/H₂O ratios in proto-planetary disks (poster)

PROFESSIONAL EXPERIENCE

Berkeley School of Information Buthen Bootsamp: Designing and teaching summer workshop for incoming students, including lossens and labs

- Python Bootcamp: Designing and teaching summer workshop for incoming students, including lessons and labs
- "Social Issues of Information" (INFO 203): Assisting professor with course design; mentoring & advising students

American Civil Liberties Union of Massachusetts

Technology for Liberty Consultant2021 – Pres.Fellow & Staff Technologist2019 – 2021

- Supporting civil rights advocacy through data analysis and maintaining the Data for Justice server and website
 - Consulting on and <u>writing</u> about how the latest technological research affects algorithmic governance
 - Developing interactive web interfaces for public data visualizations in R Shiny, HTML, CSS, & Javascript
 - Engaging the public in ACLU work and public interest technology through talks, blogs, and tweets

Space Telescope Science Institute

Research & Instrument Analyst 2017 – 2019

- Supporting the NASA JWST mission in preparation for launch/commissioning in 2021 by developing interactive tools in Python and enhancing instrument <u>simulator software</u> to generate higher-fidelity commissioning images
- Deputy Technical Lead for <u>JWST Quicklook</u> (observatory performance trending and analysis application)

PUBLICATIONS & PRESENTATIONS

Academic Publications

- "Algorithmic Transparency and Participation through the Handoff Lens: Lessons Learned from the U.S. Census Bureau's Adoption of Differential Privacy.," Amina A. Abdu, Lauren M. Chambers, Deirdre K. Mulligan, and Abigail Z. Jacobs (2024), ACM FAccT '24, June 3–6, 2024, Rio de Janeiro, Brazil. DOI: 10.1145/3630106.3658962
- "Shaping a Profession, Building a Community: Integrating Public Interest Technologists into Civil Society," Mallory Knodel, Mallika Balakrishnan, Lauren M. Chambers, ACM CSCW (2025) [in revision]
- "Reparations of the Horse? Algorithmic Reparation and Overspecialized Remedies," Colin Doyle, Melissa Garcia Alvarez, Pelle Tracey, Gabriel Grill, Cedric Whitney, Lauren M. Chambers, Big Data & Society (2025) [in revision]
- "A Different Kind of Dark Energy: Evidence for Placing Race and Gender in Physics," Lauren M. Chambers, Bulletin of the American Astronomical Society, Vol. 51, Issue 7, id. 162 (2019), <u>Bibcode: 2019BAAS...51g.162C</u>

Selected Analytic Blogs & Websites

- "Police Violence Happens Here," Sep '20, database & map
- "Unpacking the Boston Police budget," June '20, blog
- "Tracking COVID-19 in Massachusetts Prisons and Jails," Apr. '20, interactive <u>dashboard</u>
- "How to programmatically create dozens of Wordpress pages to catalogue 1000s of docs," Mar. '21, <u>blog</u>

Selected Presentations

- "Tech Storytelling for Oppositionists and Others," Code4Lib Conference, <u>closing keynote</u>, May '22
- "Technology for Liberty," Davidson College Math & CS Dept. Colloquium, <u>invited talk</u>, Sep. '20
- "Unpacking the Boston Police Budget," Boston City Council Budget Hearing, oral <u>testimony</u>, June '20

HONORS & AWARDS

2023 – Pres.	National Science Foundation Graduate Research Fellowship (NSF GRFP)
2023 – Pres.	Ford Foundation Predoctoral Fellowship
Jun. 2024	ACM FAccT Diversity, Equity, & Inclusion Scholarship, Honorable Mention
2023 – 2024	Berkeley Empirical Legal Studies Fellowship
2021 – 2023	Berkeley Fellowship, "awarded to outstanding applicants to doctoral programs in all fields"
2020 – 2023	Harvard Berkman Klein Center for Internet & Society, Affiliate
Nov. 2020	Boston Bar Association President's Award, for advocacy supporting prisoners during COVID-19
May 2017	George Beckwith Prize, "to the undergraduate most proficient in some branch of astronomy."
May 2017	William Pickens Prize, "for an outstanding senior essay in the field of African American Studies."

MENTORSHIP & COMMUNITY INVOLVEMENT (SELECTED)

2023 – Pres.	Berkeley International & Area Studies (ORIAS) Speakers Bureau, K-12 & College Speaker
2022 – Pres.	PhD Representative, Berkeley I School Diversity, Equity, Inclusion, Belonging, & Justice Working Group
2021 – Pres.	Program Organizer, Berkeley I School PhD Underrepresented Applicant Feedback Program
2020 – Pres.	Mentor, Coding it Forward Civic Digital Fellowship
Nov. 2019	Algorithmic Justice League "Drag v. Al" Workshop Organizer, Boston Public Library
2018 – 2019	Director's Diversity and Inclusion Working Group Member, Space Telescope Science Institute
2015 – 2016	Science, Technology, and Research Scholars (STARS) Peer Mentor, Yale College Dean's Office

ADDITIONAL SKILLS

Software Development & Data Analysis:

- Python (including pandas, matplotlib, astropy, scipy, pyqt, django, scikit-learn, Jupyter notebooks)
- git (GitHub & GitLab) and CI (Travis/Jenkins/GitLab)
- Unix/Bash, Apache
- R (including dplyr, ggplot, leaflet, shiny, plotly)
- HTML, CSS, Javascript

Language: Intermediate Spanish, Intermediate French

Hobbies: ballet, board games, concerts, disc golf, puzzles, writing & editing Wikipedia articles