

# LAUREN M. CHAMBERS

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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** *Doctoral Research* 2021 – Pres.

*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 identify (1) benefits and challenges that advocates undergo integrating technologists into workflows, and (2) roles where tech can be employed in service of advocacy goals

*Transparency, Differential Privacy, and the US Census I Collaborators: Amina Abdu, Abbie Jacobs, Deirdre Mulligan*

- Examining the Census Bureau's implementation of differential privacy for the 2020 disclosure avoidance system in order to interrogate the role of public participation and engagement in algorithmic development processes
- Analyzing publicly available documents and evaluating Census policies and processes promoting transparency

**Center for Democracy & Technology** *Summer Internship* 2023

- 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

**Yale African American Studies Dept.** *Undergraduate Thesis* 2016 – 2017

*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

**Harvard Center for Astrophysics & Yale Astronomy Dept.** *Undergraduate Thesis* 2016 – 2017

*Understanding Gas-Phase Ammonia (NH<sub>3</sub>) Chemistry in Proto-Planetary Disks I Advisors: Karin Öberg & Hector Arce*

- Optimizing a numerical astrochemical model to investigate NH<sub>3</sub>/H<sub>2</sub>O ratios in proto-planetary disks

## PROFESSIONAL EXPERIENCE

**American Civil Liberties Union of Massachusetts** *Technology for Liberty Consultant* 2021 – Pres.

*Fellow & Staff Technologist* 2019 – 2021

- Supporting civil rights advocacy through data analysis and maintaining the [Data for Justice](#) server and website
  - Consulting on and [writing](#) 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 [simulator software](#) to generate higher-fidelity commissioning images
- Deputy Technical Lead for [JWST Quicklook](#) (observatory performance trending and analysis application)

## PUBLICATIONS & PRESENTATIONS

### Academic Publications

- "Transparency, Technocracy & Trust in Participatory Algorithmic Governance: Lessons from the US Census' Implementation of Differential Privacy," Amina Abdu, **Lauren M. Chambers**, Abigail Jacobs, Deirdre Mulligan [in prep]
- "Should Reparations be Algorithmic?," Colin Doyle, Melissa Garcia Alvarez, Pelle Tracey, Gabriel Grill, Cedric Whitney, **Lauren M. Chambers**, *Big Data & Society* (2023) [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), Bibcode: 2019BAAS...51g.162C

### Selected Analytic Blogs and Websites

- "Police Violence Happens Here," Sep '20, database & [map](#)
- "Research shows domino effect when humans use face recognition algorithms," Sep. '20, [blog](#)
- "Unpacking the Boston Police budget," June '20, [blog](#)
- "Tracking COVID-19 in Massachusetts Prisons and Jails," Apr. '20, interactive [dashboard](#)
- "Data show COVID-19 is hitting essential workers and people of color hardest," Apr. '20, [blog](#)
- "How to programmatically create dozens of Wordpress pages to catalogue 1000s of docs," Mar. '21, [blog](#)

### Selected Presentations

- "Tech Storytelling for Oppositionists and Others," Code4Lib Conference, [closing keynote](#), May '22
- "Technology for Liberty," Davidson College Math & CS Dept. Colloquium, [invited talk](#), Sep. '20
- "Unpacking the Boston Police Budget," Boston City Council Budget Hearing, oral [testimony](#), June '20
- "Placing Race and Gender in Physics," .Astronomy X Conference, [talk](#), Sep. '18
- "Understanding Ammonia Chemistry in Protoplanetary Disks," AAS Conference, [poster](#), Jan. '17

## HONORS & AWARDS

- 2023 – Pres. **National Science Foundation Graduate Research Fellowship (NSF GRFP)**
- 2023 – Pres. **Ford Foundation Predoctoral Fellowship**
- 2023 – Pres. **Berkeley Empirical Legal Studies Fellowship**
- 2021 – 2023 **Berkeley Fellowship**, "awarded to outstanding applicants to doctoral programs in all fields"
- 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."
- 2015 – 2017 **Edward A. Bouchet-Robertson Fellowship**, for underrepresented students pursuing academia

## MENTORSHIP & COMMUNITY INVOLVEMENT (SELECTED)

- 2023 – Pres. **Berkeley Social Science Data Laboratory (D-Lab)**, Technical Consulting Fellow
- 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. AI" 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)
- R (including dplyr, ggplot, leaflet, shiny, plotly)
- git (GitHub & GitLab) and CI (Travis/Jenkins/GitLab)
- Unix/Bash, Apache
- HTML, CSS, Javascript

**Language:** Intermediate Spanish, Intermediate French

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