Teanna Barrett

Seattle, Washington

tb23@cs.washington.edu

My research articulates and questions the value systems of data science fairness paradigms as a means to understand contemporary anti-blackness and inform design frameworks for responsible data science.

Education:

University of Washington | Seattle, WA | GPA: 4.00   (June 2024 - Present)
- PhD Computer Science student
- Co-advised by Leilani Battle, PhD and Amy Zhang, PhD
- **Concentrations**: Human-Computer Interactions (HCI), ML Ethics and Community-based Participatory Research (CBPR)
- **Relevant Coursework:** Ethics in AI, Qualitative Methods, Disability Inclusion for Technologists
- **Teacher's Assistant** CSE 440, Intro to HCI (Fall 2025 & Winter 2026)

Howard University | Washington, D.C. | GPA: 3.97   (Aug 2019 - May 2023)
- Summa Cume Laude, Bachelor of Science in Computer Science with a minor in Philosophy
- **Relevant Coursework**: Probability and Statistics I, Intro to ML, Applied Data Science, Affective Computing, Database Systems (SQL), Computer Science III (Data Structures & Algorithms)
- **Activities**: Intro to CS Teacher's Assistant (Fall 2020), Howard University Community Gospel Choir (2020-2023)

Publications & Presentations:

Barrett, T., Okolo, C. T., Biira, B., Sherif, E., Zhang, A. X., & Battle, L. (2025). **African Data A Discursive Framework for Black Decolonial Data Science**. In Proceedings of the 2025 ACM Conference on Fairness, Accountability, and Transparency (FAccT '25). Association for Computing Machinery, New York, NY, USA, 334–349. doi:10.1145/3715275.3732023

Dong, Z., Barrett, T., Patil, A. B., Shoda, Y., Battle, L., & Wall, E. (2025, March). **A Design Space of Behavior Change Interventions for Responsible Data Science.** In *Proceedings of the 30th International Conference on Intelligent User Interfaces* (pp. 37-53).

Barrett, T., Johnson, K., Arroyos, V., Hussein, L., Cora, A., Sherif, E., Garcia, C., Uthmaan, S., Shirazy, S., Cunningham, J., Shapiro, R.B., & Iyer, V. (2024) **Scalable Community Mentorship: A Vision for Engineering Literacy & Access.** 024 World Engineering Education Forum - Global Engineering Deans Council (WEEF-GEDC), Sydney, Australia, 2024, pp. 1-9, doi: 10.1109/WEEF-GEDC63419.2024.10854949.

Holliday, R., Martin, S., Phillips, R., Barrett, T., Shahin, Z., Farley, K., Bunzy, N., & Kegley, S. (2024). **Awareness, knowledge, and willingness to take PrEP among Black students attending Historically Black Colleges and Universities and Minority Serving Institutions**. *Journal of American College Health*, 1-11.

Barrett, T., Chen, Q., & Zhang, A. (2023, June). **Skin Deep: Investigating Subjectivity in Skin Tone Annotations for Computer Vision Benchmark Datasets**. In Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency (pp. 1757-1771).

Corriette, B., Parsons, D., Alim, C., Barrett, T., Cranston, T., & Washington, G. (2023, March). **Using VR to Elicit Empathy in Current and Future Psychiatrists for their Patients of Color**. In 2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW) (pp. 187-190). IEEE.

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Barrett, T. (2023). **Kiwibots on Kampus: The Ethical Concerns of Autonomous Vehicles in Black Spaces**. GRACE: Global Review of AI Community Ethics, 1(1).

Aryal, S. K., Barrett, T., & Washington, G. (2022, October). **Evaluating Novel Mask-RCNN Architectures for Ear Mask Segmentation**. In Proceedings of the 2022 11th International Conference on Bioinformatics and Biomedical Science (pp. 46-53).

Research and Work Experience:

Dashboard Recommendation Project | University of Washington (March 2025 - Present)
- Developed two dashboards using Mosaic Google Colab API
- Collated and wrote related works section for project report

AI Ethics Assessment of Skin Complexion Metadata | University of Washington (Sept 2025 - Present)
- Final project for CSE 582 - Ethics in AI course
- Collaborated with UW Center for Human Rights to assess the ethical implications for modeling I-213 form data
- Cleaned data from OCR text recognition
- Explored the intersection of skin complexion and other metadata
- Performed chi-square tests to investigate associations between skin complexion missing entries and other form data categories

African Data Ethics | University of Washington (Sept 2025 - Present)
- Dictated project focus and organized research team
- Thematically analyzed 47 documents to form data ethics framework
- Comparatively analyzed 7 other data ethics frameworks
- Authored 7 case studies

AVELA - A Vision for Engineering Literacy & Access | Seattle, WA (June 2024 - Feb 2025)
- Taught 2 web design classes (Su 24' & Wi 25') to 15+ students at Garfield High School
- Conducted live coding demos and updated lesson plans for each class
- Managed the development of and disseminated 9 completed small business websites
- Coordinated with co-instructor, school faculty, and Urban League organizers

DUB REU Research Mentor | University of Washington (June 2024 - Aug 2024)
- Advised two undergraduate students in exploring the impact of LLMs on learning D3
- Created an interactive collapsible tree visualization using D3 on the platform Observable
- Reviewed posters, study protocols and project report of undergraduate students
- Co-organizer and panelist for DUB REU graduate school panel

Behavior Change for Data Science | Emory University (Feb 2024 - Mar 2025)
- Qualitatively coded 26 intervention tools with first author
- Wrote two user scenario narratives and revised discussion of design implications
- Routinely met with research team to iterate on design space

Research Assistant | Morehouse School of Medicine (Aug 2023 - June 2024)
- Assisted HIV prevention intervention projects led by Rhonda Holliday, MPH, PhD
- Awarded 2nd Place overall for "PrO Sisters: Assessing PrEP Knowledge and Uptake Willingness

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Among Black Women" poster at the 2024 Blumenthal Public Health Symposium
- Managed, cleaned and analyzed qualitative focus group and quantitative survey data
- Curated thorough literature reviews for five manuscript submissions

PRIME AIM AHEAD Program | National Institute of Health   (Sept 2022 - May 2023)
- Registered All of US Workbench Researcher for Electronic Health Record (EHR) data
- Completed self-guided trainings on health equity and Machine Learning as an inaugural member of the NIH funded program
- Presented team poster at AIM AHEAD NIH regional meeting in Washington D.C.

DUB REU | University of Washington   (June 2022 - Aug 2022)
- Presented poster, "Skin Deep: Uncertainty in Skin Tone Annotations for Computer Vision Fairness Benchmarks"
- Conducted literature review of skin tone annotation procedures in CV for over 70 papers
- Developed and piloted annotation system for Mechanical Turk

Advanced Computing for Social Change (ACSC) Program | Virtual   (May 2022)
- Completed month-long self-guided training in Data Science
- Collected and cleaned DC data to generate several data visualizations
- Presented a final project on the social impact of CCTV police cameras in D.C.

Technology and Power Network   (June 2021-Present)
- Programmed subsequent 2-session workshop called "Application Denied" about building technology for recording registers that track algorithmic harms
- Facilitated third part of workshop at FAccT '22
- Presented "Code Review as Sociotechnical Pedagogy" at Cambridge Code as Conversation conference (virtually)
- Planning an LLM code reviewing workshop for non-technical organizers and policy makers

NYU Center for Data Science Undergraduate Research Program   (Jan 2021- July 2021)
- Utilized Twitter API and Jupyter Notebooks to analyze the frequency of BLM-related tweets during June 2020 with histograms
- Annotated over 200 tweets for Twitter data research
- Participated in 3-day Data Science Bootcamp, conducted several knowledge-building interviews, and completed NYU Research Ethics course

Diverse Ear Biometric Dataset | Howard University   (Mar 2020-Mar 2022)
- Wrote survey paper on Ear Recognition methodologies
- Collected and mask-labeled over 300 images for CV dataset
- Led undergraduate research team in building ear image dataset
- Utilized Google Colab and Pixel Annotation tool to collect and store 1000+ images

Google STEP Intern | Cambridge, MA & Mountain View, CA   (May 2020-Aug 2021)
- Implemented REGEX address extraction algorithm in Android to populate a form in Kotlin
- Scaled a map-marking algorithm using JavaScript, Java, Google Maps and Datastore APIs (with JUnit testing)

Undergraduate Research Assistant | Howard University   (Jan 2020-May 2023)
- Presented project updates to members of Affective Biometrics Lab

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- Participated in troubleshooting meetings for Virtual Machine maintenance
- Built life-like avatar in Unity using blender and Unity Multipurpose Avatar assets
- Writing literature review of VR applications for DEI trainings

Relevant Skills:

Java, Kotlin (**Android Development**) HTML, CSS, JavaScript, D3, Figma (**Web Development**) Python, R, SQL, Jupyter Notebook, MATLAB, SPSS (**Data Science**), MaxQDA, Miro (**Qual**), C++, Git, REGEX, MIPS/Assembly

Honors and Achievements:

UW College of Engineering (COE) Dean's Fellow (2024 - 2025)
Achievement Awards for College Scientists (ARCS) Fellow (2024 - 2027)
Karsh STEM Scholar Underrepresented students pursuing STEM PhD (2019 - 2023)
Columbia DivHacks Pinterest Anti-Racism Award for Wifi Donation App (Oct 2020)
Howard University EECS AT&T Hackathon First Place Award (Sept 2019)
Industry-Research Inclusion in STEM Education First-year research development (2019)

Professional Memberships:

Black Graduate Student Association Community Service Chair (2024-2025), President (2025-2026)
LEAP Alliance Member (June 2024 - Present)
Tau Beta Pi at Howard University Recording Secretary (May 2021-May 2022)
Howard University Society of Women Engineers Secretary (2021-2022), President (2022-2023)

Academic Service:

Conference Volunteer Tapia (2022), FAccT (2023 & 2025), Grace Hopper (2024)
Undergraduate Mentorship DUB REU (2024), LEAP Alliance (2025), CSE 492 R Undergraduate Research Course (2025)
Paper Reviewer CHI 2025 & 2026