Teanna Barrett

Seattle, Washington

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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 liberatory technology.

Education:

University of Washington | Seattle, WA

(June 2024 - Present)

- PhD Computer Science student
- Co-advised by Leilani Battle, PhD and Amy Zhang, PhD
- Concentration: Human-Computer Interactions (HCI), ML Ethics and Community-based Participatory Research (CBPR)

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), Tapia Conference Student Volunteer (Sept 2022), AAAI Undergraduate Consortium (Feb 2023), FAccT Volunteer (June 2023)

Publications:

- 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.
- 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).
- Aryal, S., Barrett, T., & Aryal, S. (2022) Ear Detection and Recognition Survey. Manuscript in preparation.

Research and Work Experience:

AVELA - A Vision for Engineering Literacy & Access

(June 2024 - Present)

- Teaching a web design class to students of Garfield High School
- Wrote, coordinated and was the corresponding author for manuscript submissions

DUB REU Research Mentor | University of Washington

(June 2024 - Aug 2024)

- Advising two undergraduate students in exploring the impact of LLMs on learning D3
- Co-organizer and panelist for DUB REU graduate school panel

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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 at Cambridge Code as Conversation conference

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 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 | NIH

(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

Undergraduate Research Assistant | Howard University

(Jan 2020-May 2023)

- Presented project updates to members of Affective Biometrics Lab
- 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

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

ACSC Data Science Program

(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.

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

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• Scaled a map-marking algorithm using JavaScript, Java, Google Maps and Datastore APIs (with JUnit testing)

Relevant Skills and Experiences:

Java, Kotlin (**Android Development**) HTML, CSS, JavaScript, (**Web Development**) Python, R, SQL, Jupyter Notebook, MATLAB, SPSS (**Data Science**), MaxQDA (**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:

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)