Jeffrey Kodua Basoah
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Curriculum Vitae

Education

Ph.D. Human-Centered Design and Engineering
Concentration: Human-Computer Interaction
Advisor: Dr. Daniela K. Rosner, Dr. Katharina Reinecke
University of Washington (Expected: June 2027)

M.S. Human-Centered Design and Engineering
Advisor: Dr. Daniela K. Rosner, Dr. Katharina Reinecke
University of Washington (Expected: December 2025)

M.S. Systems Engineering
Thesis: "*The SPORT-C Intervention: An Integration of Sports, Case-Based Pedagogy, and Systems Thinking Learning*"
Advisor: Dr. William Scherer
University of Virginia (May 2022)

B.S. Mechanical Engineering
Minor: Green Engineering
Virginia Polytechnic Institute and State University (May 2018)

Research Experience

Tactile and Tactical Design Lab x Wildlab | University of Washington| Graduate Research Assistant | September 2022 – Present

Not Like Us, Hunty: Measuring Perceptions and Behavioral Effects of Minoritized Anthropomorphic Cues in LLMs

As large language models (LLMs) increasingly adapt and personalize to diverse sets of users, there is an increased risk of systems appropriating sociolects, i.e., language styles or dialects that are associated with specific minoritized lived experiences (e.g., African American English, Queer slang). In this work, we examine whether sociolect usage by an LLM agent affects user reliance on its outputs and user perception (satisfaction, frustration, trust, and social presence). We designed and conducted user studies where 498 African American English (AAE) speakers and 487 Queer slang speakers performed a set of question-answering tasks with LLM-based suggestions in either standard American English (SAE) or their self-identified sociolect.

- Results suggest that both AAE and Queer slang speakers relied more on the SAE agent, and had more positive perceptions of the SAE agent. Yet, only Queer slang speakers felt more social presence from the Queer slang agent over the SAE one, whereas only AAE speakers preferred and trusted the SAE agent over the AAE one.
- These findings emphasize the need to test for behavioral outcomes rather than simply assuming that personalization would leave to better and safer reliance outcome.

Hopeful Failure: How Collaborative Design Fiction Reimagines Role

While AI development is expanding, marginalized communities are often excluded from shaping its future. This study explores how Black American participants envision AI through collaborative storytelling, focusing on hopes, concerns, and social impacts. Using the "Exquisite Tellings" method, we held design fiction workshops with 10 participants, uncovering themes of reliance, autonomy, and cultural nuance in AI.

- This work introduces "Exquisite Tellings," a participatory storytelling method that expands inclusivity in HCI
- We identify five engagement axes with AI, blending acceptance and resistance, moving beyond simple optimism or pessimism.
- We develop a collective approach to design fiction, balancing individual agency with shared imagination to envision alternative AI futures.

Should AI Mimic People? Understanding AI-Supported Writing Technology Among Black Users| Role: Lead Researcher| January 2023 – October 2023

Although much research has examined bias in large language models, studies on how Black American users experience everyday interactions with NLP tools are still emerging. This study explores the expectations, apprehensions, and perceptions of Black American users regarding AI-supported writing technology. We conducted semi-structured virtual interviews with 13 participants, followed by a remote-moderated user study of word processing software (Google Docs) and large language models (ChatGPT).

- Our findings document Black American users' experiences with AI-supported writing technologies, complementing existing literature on large language model's limitations in language technology.
- Unlike prior studies, our work revealed a novel concern: the potential for the gradual erasure of Black American culture as future generations increasingly depend on AI for information—a critical perspective that has not been thoroughly examined in existing HCI research.

The Sports Analytics Club Program | Mixed-Methods Researcher | February 2021 – May 2022

The SPORT-C Intervention: An Integration of Sports, Case-Based Pedagogy and Systems Thinking Learning

The study aimed to integrate sports cases into STEM courses to foster increased student engagement of an underrepresented demographic in the STEM field.

- Designed user surveys utilizing Qualtrics to gather preliminary data on academic engagement, self-efficacy, expectancy, value, and cost to understand influence of sports on students learning experience.
- Conducted qualitative usability tests with 2 classrooms to assess correlation and impact of sports-related topics in student learning experiences, aligning case development with student feedback.
- Communicated survey findings and insights to interdisciplinary team for further evaluation of future case development process, ensuring roadmap addresses all 4 stakeholder goals and relevant metrics are being measured.

Monumental Sports and Entertainment | Data Analyst | January 2021 – March 2021

Fired Fairly? Examining Racial Disparities in NCAA Football Coaching Positions

The study addresses a notable racial imbalance in college football, where African Americans constitute nearly 50% of FBS players but hold less than 10% of head coaching positions.

- Applied both classical and exploratory data analysis techniques, including linear regression, binary regression, ANOVA, and T-tests, to perform large-scale complex analysis into whether racial bias was present in firing minority coaches in the NCAA.
- Employed Minitab to analyze a large-scale longitudinal dataset of 200 NCAA coaches over past decade for hypothesis testing and regression model construction.
- Communicated findings to 20 MBA Executives in an educational workshop utilizing data visualizations, leading to understanding results of racial bias in hiring minority coaches.

Peer-Reviewed Publications

2025 Cunningham, J. L., Adjagbodjou, A., Basoah, J., Jawara, J., Kadoma, K., & Lewis, A. (2025). Toward Responsible ASR for African American English Speakers: A Scoping Review of Bias and Equity in Speech Technology. In Proceedings of the 2025 AAAI/ACM Conference on AI, Ethics, and Society (AIES-2025). Madrid, Spain. [Accepted, awaiting publication]

2025 Basoah, J., Chechelnitsky, D., Long, T., Reinecke, K., Zerva, C., Zhou, K., Díaz, M., & Sap, M. Not Like Us, Hunty: Measuring Perceptions and Behavioral Effects of Minoritized Anthropomorphic Cues in LLMs. 2025 ACM Conference on Fairness, Accountability, and Transparency (FAccT '25). https://doi.org/10.1145/3715275.3732045

2025 Basoah, J., Cunningham, J., Adams, E., Bose, A., Jain, A., Yadav, K., Yang, Z., Reinecke, K., & Rosner, D. Should AI Mimic People? Understanding AI-Supported Writing Technology Among Black Users. 28th ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW '25). https://doi.org/10.1145/3757423 [Accepted, awaiting publication]

2022 Basoah, J., Scherer, W., Boyd-Sinkler, K., & Bailey, R. (2023, June 19). The SPORT-C Intervention: An Integration of Sports, Case-Based Pedagogy, and Systems Thinking Learning. 18th International Conference on Frontiers in Education: Computer Science & Computer Engineering (FECS'22). https://doi.org/10.48550/arXiv.2307.11755 [Accepted, awaiting publication]

Teaching Experience

Graduate Teaching Assistant
University of Washington | HCDE492: Capstone Planning (Winter 2024), Senior Capstone (Spring 2024, Spring 2025)

- Facilitated discussions and group activities during class sessions for over 76 students to enhance learning and engagement.
- Served as a mentor for 4 capstone groups over the course of two quarters, promoting academic integrity, professionalism, and ethical behavior.
- Conducted review sessions and provided guidance to students on course concepts, assignments, and capstone milestones.

Graduate Teaching Assistant
University of Virginia | SYS3034: System Evaluation | Spring 2021, Spring 2022

- Provided academic support and instruction to 60 students in undergraduate level course.
- Facilitated classroom discussion sessions and held weekly office hours to provide tutoring, counseling, or assistance to students in need.
- Contributed to the development of appropriate teaching materials to ensure content and methods of delivery met learning objectives.

Graduate Teaching Assistant
University of Virginia | SYS6001: Intro to Systems Analysis & Design | Fall 2021

- Delivered comprehensive academic support and instruction to a cohort of 30 graduate-level students, ensuring a conducive learning environment and fostering intellectual growth.
- Collaborated with faculty members to facilitate lectures, evaluate student performance, and conduct grading assessments, contributing to the overall success of the instructional team.

Professional Experience

IBM Corporation | User Experience Researcher, Senior Intern | January 2024 – August 2024

- Initiated and implemented a company-wide program to identify challenges across multiple clients, with a focus on improving user experience and engagement.
- Conducted qualitative research through usability testing to guide design strategies for proprietary product development.
- Improved product's UMUX score by 14% amount within a period of 6 months by identifying key areas for improvement and developing a strategic plan encompassing usability testing and design critiques with users to enhance user experience.
- Informed product team direction by conducting an in-depth qualitative study to identify and uncover new user segments for growth which influenced the design and development priorities of design iterations of user interfaces and product features.
- Through my qualitative research I was able to identify a new user group that the development team had not considered as primary users for the product. This led to the creation of a new user segments that influenced the direction we took with product enhancement.

IBM Corporation | User Experience Researcher, Senior Intern | June 2023 – September 2023

- Analyzed over 20 customer feedback on a bi-weekly frequency to identify key highlights and challenges faced by customers during product beta testing program; analysis was used to influence product development and align with product strategy for the upcoming release.
- Compiled and synthesized over 100 user comments to inform the development of 5 generative research workshop sessions with user base; workshops served as the foundational discussions that shed light on user grievances with most recent product release.
- Oversaw the conduction of over 15 internal interviews to assess the impact of 2 distinct visual frameworks on client adoption of the product platform, deriving 7 evidence-based insights and recommendations; findings served as the foundation for exploratory research with customers that would garner greater adoption of product.

IBM Corporation | User Experience Researcher, Intern | May 2022 – December 2022

- Conducted 2 heuristic evaluations of z/OS Management Services Catalog product by evaluating primary end-to-end user flows of 2 personas with latest code; Identified 20 improvement points within user flows.
- Collaborated with User Experience Designer to architect and design team's 2 Airtable databases and sponsor user feedback forms; improvements allow for easy capture of user experience feedback and seamless integration with current client feedback process.
- Administered 6 usability tests on sponsor users with new product designs while working alongside the User Experience Designer to form a research plan; utilized an affinity map to synthesize results and then communicated to three-in-a-box team.
- Developed an on-platform CSAT survey to over 200 participants to measure customer satisfaction and usability of IBM's Management Services Catalog platform.

Intel Corporation | Process Engineer | August 2018 – August 2020

- Modeled and assessed tool trends of over 150 tools to predict and identify potential unscheduled downtime using Statistical Process Control (SPC) system.
- Launched a daily report for the SCC toolset tracking and monitoring matching discrepancies across 3 tools, led to biweekly optimization of all tool's measured layers.
- Revamped disposition system for REG valid data failures toolset to maintain seamless data review and communication throughout all 4 shifts and command center.
- Chaired project formed to reduce quarterly spending for DPCdc, reduced spending by an average of $6000 per quarter while doubling allocated annual budget.
- Managed and investigated equipment failures of 7 tools, diagnosed faulty operation and incorporated learnings into procedures to anticipate future equipment issues.
- Shaped DPCdc availability roadmap; tool availability improved from an annual average of 86% to 94% as tool owner.

Ford Motor Company | Stamping Coordinator, Intern | May 2016 – August 2016

- Developed visual aids and single point lessons for new control point process verification system, increasing quality of stamped panels by 25%.
- Implemented verification system into assembly line, educated & coached 20 Tool & Die staff in proper procedure.

Grants

2023 University of Washington Human Centered Design & Engineering Diversity, Equity, and Inclusion Grant – **Awarded $700**
  - Support grassroots diversity, equity, and inclusion initiatives within the department. Proposals can cover a wide range of community building, group training, and other DEI-related efforts.

2023 University of Washington Human Centered Design & Engineering Doctoral Research Grant – **Awarded $1340**
  - Designed to support HCDE PhD students who need assistance to carry out research that advances their progress toward their degree.

Honors and Awards

2024 Social Action Term Fellowship in Human-Centered Design & Engineering
2023 Neon Blackboard Term Fellowship in Human-Centered Design & Engineering
2022 University of Washington College of Engineering Dean's Fellowship
2022 GEM Full Engineering Fellow, The National GEM Consortium and IBM – Ph.D.
2021 Inclusive Excellence Fellow
2021 National Society of Black Engineers Honors APEx Member
2020 GEM Full Engineering Fellow, The National GEM Consortium and Intel – M.S.
2020 Intel Scholar
2013 Virginia Tech Presidential Scholarship Initiative Recipient

Invited Talks and Panels

2022 **Presenter** - The 18th International Conference on Frontiers in Education: Computer Science & Computer Engineering
2021 **Panelist** - Navigating & Maximizing Professional Conferences

2021 **Presenter** - Darden Executive MBA Course: Data Analytics and Leadership Judgment in Sports
2020 **Panelist** - Tapia Conference: Secure Your Bag(s) & Degree(s): Graduate School Edition

Leadership

2022 - Present **Design Team Lead** - A Vision for Engineering Literacy & Access (AVELA)
2022 – 2023 **Professional Development Program Committee Member** – National Society of Black Engineers (NSBE)
2021 - 2022 **Program Assistant** - Men/Women of Color, Honor, and Ambition (M.O.C.H.A/W.O.C.H.A)
Est. 2017 **Co-Founder** – Acquiring Knowledge for Transcendence, Inc.
2015 – 2016 **Senator** – National Society of Black Engineers (Virginia Tech)

Professional & Service Activities

Department Service

2024 **PhD Admissions Review Committee**, University of Washington Human-Centered Design & Engineering
2023 – Present **PhD Student Ambassador**, University of Washington Human-Centered Design & Engineering
2023 **PhD Admissions Review Committee**, University of Washington Human-Centered Design & Engineering

Involvement and Community Engagement

2022 - Present **Member/Outreaching Grad** - Graduate Student Equity & Excellence (GSEE) – University of Washington
2022 – Present **Member** – Black Graduate Student Association (BGSA) – University of Washington
2017 - Present **Board of Director, Education Outreach** – Acquiring Knowledge for Transcendence, Inc

Conferences

2023 ACM Conference on Human Factors in Computing Systems (CHI)
2022 The 18th International Conference on Frontiers in Education: Computer Science & Computer Engineering
2022 GEM Annual Board Meeting and Conference
2022 NSBE National Convention
2021 CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference
2021 NSBE Fall Regional Conference – Region 2
2021 AfroTech Conference
2021 Black is Tech Conference
2021 GEM Annual Board Meeting and Conference
2020 CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference
2013 - 2018 NSBE National Convention and Fall Regional 2 Conference

Skills

Qualitative Research
- Semi Structured Interviews, Remote Moderated Usability Testing, Heuristic Evaluation, Usability Testing, Affinity Mapping, Experimental Design, Stakeholder Walkthrough, Survey Design,

Quantitative Research
- Linear Regression, Binary Regression, Hypothesis Testing, Chi-Square, ANOVA, T-Test, Correlation

Analytical Tools
- Minitab, Tableau, Power BI, Qualtrics, Airtable, Advanced Microsoft Excel

Programming Languages
- R/RStudio