Cyan DeVeaux

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NSF Graduate Research Fellow
Ph.D. Candidate, Department of Communication
M.S. Student, Department of Computer Science
Stanford University

Research Interests

Human-Computer Interaction · Augmented Reality (AR) · Virtual Reality (VR) · Social VR · Education Technology

Education

Stanford University, Stanford, CA
Ph.D. in Communication, 2021 - Present
M.S. in Computer Science, 2023 - Present
Advisors: Prof. Jeremy Bailenson and Prof. James Landay

Duke University, Durham, NC
B.A. in Computer Science and Visual & Media Studies, 2016 - 2020
Advisors: Prof. Mark Olson and Prof. Maria Gorlatova
Thesis: Exploring the Potential of Participatory Augmented Reality and Virtual Experiences in the Contemporary Art Museum

Publications

Journal Articles

1. **DeVeaux, C.,** Han, E., Landay, J. A., & Bailenson, J. N. (2023). Exploring the Relationship Between Attribute Discrepancy and Avatar Embodiment in Immersive Social Virtual Reality. *Cyberpsychology, Behavior, and Social Networking*.

2. Han, E., Miller, M. R., **DeVeaux, C.,** Jun, H., Nowak, K. L., Hancock, J. T., Ram, N., & Bailenson, J.N. (2023). People, places, and time: a large-scale, longitudinal study of transformed avatars and environmental context in group interaction in the metaverse. *Journal of Computer-Mediated Communication.*

3. Jun, H., Shaik, H., **DeVeaux, C.,** Lewek, M., Fuchs, H., & Bailenson, J. (2023). An Evaluation Study of 2D and 3D Teleconferencing for Remote Physical Therapy. *PRESENCE: Virtual and Augmented Reality*.

4. **DeVeaux, C.,** Markowitz, D.M., Han, E., Miller, M.R., Hancock, J. T., & Bailenson, J.N. (in prep) Presence and Pronouns: An Exploratory Investigation into the Language of Social VR

Conference Proceedings

5. Cheng, A.Y., Ritchie, J., Agrawal, N., Childs, E., **DeVeaux, C.,** Jee, Y., Leon, T., Maples, B., Cuadra, A., & Landay, J.A. (2023, April) Designing Immersive, Narrative-Based Interfaces to Guide Outdoor Learning. In *Proceedings of the 2023 CHI Conference on Human factors in Computing Systems*.

6. Queiroz, A. C. M., McGivney, E., Liu, S. X., Anderson, C. O., Beams, B., **DeVeaux, C.,** Frazier, K., Han, E., Miller, M. R., Petersen, X. S., Woolsey, E. S., Hancock, J., Bailenson, J. N. (2023), Collaborative Tasks in Immersive Virtual Reality Increase Learning. In *Proceedings of the 16th International Conference on Computer-Supported Collaborative Learning-CSCL 2023. International Society of the Learning Sciences.*

7. Miller, M.R., **DeVeaux, C.,** Han, E., Ram, N., & Bailenson, J.N. (2023, March) Proxemics and Gaze in Social Virtual Reality. In *Proceedings of the 2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*.

8. **DeVeaux, C.,** Han, E., Landay, J.A., & Bailenson, J.N. (in prep) A Presence of Absence: Understanding Disparities in Avatar Racial Representation and Embodiment in Social VR

9. **DeVeaux, C.**, Han, E., Egelman, J., & Bailenson, J.N. (in prep) "I am not the default": The Intersectional and Racialized Experiences of Avatar Embodiment Among Black Social VR Users

Posters and Extended Abstracts

10. Akselrad, D, **DeVeaux, C.**, Han, E., Miller, M.R., & Bailenson, J.N. (2023) Body Crumple, Sound Intrusion, and Embodiment Violation: Toward a Framework for Miscommunication in VR. In *Proceedings of the 2023 Conference On Computer-Supported Cooperative Work And Social Computing*.

11. **DeVeaux, C.**, Markowitz, D.M., Han, E., Miller, M.R., Hancock, J.T., & Bailenson, J.N. (2023) Descriptive Linguistic Patterns of Group Conversations in VR. In *2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*.

12. Han, E., **DeVeaux, C.**, Harari, G., & Bailenson, J.N. (2023) VRtivity: Understanding Creativity Expression in Shared Virtual Environments. In *73rd Annual International Communication Association Conference*.

13. Park, R., Han, E., Miller, M.R., **DeVeaux, C.**, Bailenson, J.N., & Ram, N. (2023) Modeling the Formation and Dissolution of Social Ties in Virtual Reality. In *73rd Annual International Communication Association Conference*.

14. **DeVeaux, C.**, Han, E., Symonette, D., Queiroz, A. C. M., & Bailenson, J.N. (in review) Designing VR-Centered Classrooms: An Interview Study of Instructors

Book Chapters

15. **DeVeaux, C.**, Han, E., & Bailenson, J.N. (2022). Expanding Education through Virtual Reality. In McKenzie, S. P., Arulkadacham, L., Chung, J., & Aziz, Z. (Eds.), *The Future of Online Education* (pp. 325-336). Nova Science Publishers.

Magazine Articles

16. **DeVeaux, C.**, & Bailenson, J.N. (2022). Learning about VR in VR. *XRDS: Crossroads, The ACM Magazine for Students*, 29(1), 14–19.

Research Experience

Human-Computer Interaction Group, Stanford University — Apr 2022 - Present
Graduate Researcher, advised by Prof. James Landay

Virtual Human Interaction Lab, Stanford University — Sept 2021 - Present
Graduate Researcher, advised by Prof. Jeremy Bailenson

Intelligent Interactive Internet of Things Lab, Duke University — Aug 2019 - May 2020
Undergraduate Researcher, advised by Prof. Maria Gorlatova and Prof. Mark Olson

Digital Art History & Visual Culture Lab, Duke University — Oct 2017 - May 2020
Undergraduate Research Assistant, advised by Prof. Edward Triplett

Identity & Diversity Lab, Duke University — Jan 2017 - Apr 2017
Undergraduate Research Assistant, advised by Prof. Sarah Gaither

Industry Experience

Google, New York, NY — Jul 2020 - Aug 2021
Software Engineer - Engineering Resident - Frontend Development

- Created accessible, shared Angular UI components that are deployed throughout Google Enterprise Platforms
- Contributed to frontend feature that tracks revision history in Jamboard, Google's collaborative digital whiteboard product

NBCUniversal, New York, NY — Jun 2019 - Aug 2019
Media Tech Intern - Broadcast Engineering

- Created web-based countdown clocks to the 2020 elections for monitors in the NBC Decision Desk
- Utilized Amazon Web Services' S3, EC2, and API Gateway to deploy, authorize, and execute a cron job on a single-page app for Lab Device Resource Allocation
- Developed Python scripts to estimate the operational expenses of a livestream on AWS Elemental MediaLive and recommended optimal pricing plans based on cost-effectiveness

Duke PepsiCo Education Technology, Durham, NC Oct 2017 - Jul 2020
Student Assistant
- Engaged students from Durham Public Schools with multimedia technologies and created interfaces for learning that leveraged physical computing and AR

Awards and Honors

National Science Foundation Graduate Research Fellowship, 2023
Stanford Technology & Racial Equity Graduate Fellowship, 2022
Stanford Graduate Fellowship in Science and Engineering, 2021
Stanford Enhancing Diversity in Graduate Education Fellowship, 2021
Duke Visual & Media Studies Award, 2020
Reginaldo Howard Memorial Scholarship (Full Merit Scholarship to Duke University), 2016

Teaching Experience

COMM 166/266: Virtual People, Stanford University Fall 2021, Fall 2022
Graduate Teaching Assistant, with Prof. Jeremy Bailenson

CS 101: Introduction to Computer Science, Duke University Fall 2017
Undergraduate Teaching Assistant, with Prof. Susan Rodger

Invited Talks, Panels, and Presentations

Northeastern University's Communication and XR Course Jan 2024
Upcoming guest lecture

University of Waterloo's Emerging Voices in Black Game Studies Panel September 2023
Panelist for the Games Institute's *"Anti-Racism, Decolonization, and EDI for Games Communities"* Speaker Series at the Games Institute

Stanford University's CS 377E: Designing Solutions to Global Grand Challenges Course May 2023
Guest lecture on *"A Presence of Absence: Understanding Disparities in Avatar Racial Representation and Embodiment in Social VR"*

International Communication Association Conference May 2023
Paper talk on *"A Presence of Absence: Understanding Disparities in Avatar Racial Representation and Embodiment in Social VR"*
Paper talk on *"A Large Scale, Longitudinal Analysis of Speech in Social VR: Language in the Virtual Classroom"*

IEEE Conference on Virtual Reality and 3D User Interfaces Mar 2023
Poster presentation on *"Descriptive Linguistic Patterns of Group Conversations in VR"*

Stanford University's COMM118S: Designing the Future of Virtual Worlds Course Jul 2022
Guest lecture on *"Avatars and Virtual Selves"*

Intel's Education Team Jul 2022
Panel on *"Metaverse in K12 Education"*

Massachusetts Institute of Technology's 2.S972: Virtualizing the Human Body Course Mar 2022
Guest lecture on "*Education in the Metaverse: Stanford's Virtual People Course"*

Stanford University's Art + Tech Monthly Salon Nov 2021
Presentation on *"Creating Classes and New Worlds in VR"*

Professional Service

Reviewer

ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW), 2023
ACM SIGGRAPH Poster, 2023
IEEE International Symposium on Mixed and Augmented Reality (ISMAR), 2023
ACM SIGCHI Late-Breaking Work, 2023
International Communication Association (ICA) Conference, 2023
Peabody Awards Screening Committee - Interactive and Immersive Media, 2022

University Service

Stanford Black Graduate Student Association Co-Historian, 2022-23
Stanford Communication Dept. Student Application Mentorship Committee, 2022
Stanford XR Hackathon Judge, 2022

Mentorship

Stanford INSPiRE-CS Mentor, 2023
Duke Technology Scholar Mentor, 2021-23
Duke SPIRE Fellow Alumni Mentor, 2021
Black Girls CODE Google Mentor, 2021

Other Service

AWE XR Conference Volunteer, 2022
Black Girls CODE Tech Assistant, 2018-19
Duke Women in Technology Co-President, 2018-19