

**Fredric Vivan Van Freeman****Immersive Technology Consultant / UX Researcher / Artist (MSUX)**

Fredric V Freeman is dedicated to a career path focused on exploring science and technology within the realms of emerging digital platforms, healthcare, and the humanities. He is a multidisciplinary artist, educator, researcher, and designer with over 20 years of experience in the digital design field.

Fredric's varied background includes software development and interactive design solutions for the healthcare sector, award winning motion based narratives for the financial industry, and mobile first high volume e-commerce data visualization approaches.

Freeman currently works with Nemours Children's Hospital of Delaware to serve as Co-PI and Creative Director of Virtual Reality design and development on a pilot clinical trial for a VR educational tool to improve health outcomes for youth with Sickle Cell Disease. This virtual reality project focuses on digital innovation to solve real world problems that have high community impact. Ultimately this VR research project spans across multiple institutions featuring collaborations with multidisciplinary SCD clinicians and researchers, patient education specialists, patients, and families. Fredric has also helped to design and run virtual reality patient testing workshops, with a focus on technology safety and COVID19 compliance. He has previously worked on digital health projects including Pfizer's first iPhone app, a clinical depression aid, based on the DSM-5 manual. He has also worked with a team to concept, design, and develop an interactive healthcare application for Bristol-Myers Squibb leveraging MIT open source technology, customized bluetooth user input devices, and a large format display.

More recently Fredric has served as Lead Faculty of VR/AR/XR at Thomas Jefferson University School of Design and Engineering. In this role he led numerous transdisciplinary XR projects involving faculty, students, and staff from various disciplines such as Architecture, Animation, UX, Industrial Design, Graphic Design, and Information Technology. These virtual, augmented, and extended reality projects featured collaborations between the College of Design, Engineering & Commerce, and the College of Architecture & The Built Environment.

His pedagogical approach focuses on a combination of primary and secondary research along with creative development to aid students and learners in the synthesis of new information. The crux of his teaching philosophy is providing students with a multidisciplinary learning environment, often leveraging skill sets from various backgrounds to promote skill sharing and innovation through cross pollination. Freeman's teaching background also consists of constructing numerous new courses and redesigning existing course material. As well as helping transition traditional in-person courses to an online format due to Covid19.

Currently he is serving as interim faculty of Graphic Design, Web Development, and Virtual Reality at Sam Houston State University as part of the College of Art and Media. He is also the Co-Founder of the XR Health and Humanities Lab at Sam Houston State University. And Co-Founder of OnXR, an immersive technology life sciences education company.

### **Other Experience and Professional Memberships**

2016	VR Designer, <i>La Colombe Virtual Tour</i> , 360 Virtual Store Experience for International Beverage Conference, Los Angeles, CA
2016	Creative Director and VR Designer, <i>Divine Vibes</i> , 360 Virtual Tour The Divine Lorraine, Philadelphia, PA
2018	Workshop Leader, <i>Dreamscape</i> Projection Mapping Workshop for Kids Cool Jobs Expo 2018, Fresh Artists. Philadelphia, PA.
2018	Co-Creative Director, <i>MallWare</i> , 2 - Channel Video Installation, Philadelphia Fashion Week F18, Made Institute. City Hall, Philadelphia, PA
2018	Co-Project Lead, <i>Ravenhill Animated</i> , Lighting as a Public Experience w/ Lyn Godly. Thomas Jefferson University, Philadelphia, PA.
2018 - 2024	Founder/Director, Kuzu Creative House, Digital Design Agency focused on creating interactive and immersive experiences, Philadelphia, PA
2019	Immersive Digital Media Advisor, <i>Welcome to Cool Jobs</i> , Immersive Video Installation in collaboration with Jefferson University Lighting as a public experience course. Cool Jobs Expo 2019, Fresh Artists. Philadelphia, PA
2019	Project Lead <i>Silly City VR: Silly Philly Virtual Gallery for kids</i> Fresh Artists, Philadelphia, PA
2019 - Present	Creative Director of Virtual Reality Design and Development for CyberCell, <i>Nemours Children's Hospital</i> , Wilmington, DE
2020 - 2021	VR UX Researcher / Audio Specialist, <i>Virtual Experience Interaction Lab</i> Veil, Los Angeles, CA
2020 - 2021	User Experience Researcher / UI Designer, <i>COVID Climate Research Project</i> University of Maryland, MD
2020 - 2021	Chief Technology Officer / Research and Development Advisor, <i>Hoth Intelligence</i> , Philadelphia, PA
2021	Organizer and Presenter, <i>Virtual Reality Workshop</i> , Sam Houston State University College of Arts and Media, Huntsville, TX
2021 - Present	Interem Faculty Graphic Design, Web Dev, Virtual Reality, Sam Houston State University College of Arts and Media, Huntsville TX

2021	AR/VR Panelist <i>Depaul User Experience Association (DUXA)</i> Depaul University, Chicago, IL
2021	Lead Faculty of VR/AR/XR, <i>Thomas Jefferson University School of Design and Engineering</i> , Philadelphia, PA
2022	Cofounder, <i>XR Health and Humanities Lab</i> Sam Houston State University College of Art and Media, Huntsville, TX
2022	VR/AR Presenter <i>The Expanding Role of Audio in the VR/AR Educational Space</i> , Music Meets Metaverse Summit, Gatherverse Online Event
2022	VR/AR Presenter <i>Emerging Tech in UX Design</i> , Reimagine Patient Education Through Virtual Reality, Online Event
2022 - Present	Artist in Residence, <i>Young Audiences New Jersey</i> , Virtual Reality Game development in conjunction with NJ Arts Council and the National Endowment for the Arts, Toms River, NJ
2023	Immersive Technology Consultant, University of Alabama Dept of Geography And Environment, Venus flytrap poaching and conservation in North Carolina
2023	Immersive Technology Consultant, Drexel School of Medicine Cell Culture Lab, 360 Immersive Educational Experience, Philadelphia, PA.
2024	CEO/CoFounder, OnXR, Immersive education for Life Sciences, Remote.

## Awards & Recognitions

2015	Merit Award, New Talent Design Annual
2016	Mentor, Jefferson Innovation Health Hack. Philadelphia, PA.
2018-2019	President, Philadelphia Area New Media Association
2022	Award, Interdisciplinary Collaboration Grant. Sam Houston State University. TX
2023	Award, Donaghue Grant for Greater Value Portfolio
2024	Award, Best Abstract Oral Presentation. SCDA 2024

## C. Contributions to Science and technology

**1. Virtual and Augmented Reality Lectures and Coursework.** As part of efforts with the VR/AR program my development includes a focus on research intended to bridge the technology gap between organizations and individuals. My research puts forward that virtual and augmented reality applications have the ability to elicit novel physiological, emotional, and psychological responses, potentially paving the way to create new standardized platforms for sharing information. In addition to my course research and development work, I have participated in keynote speaking engagements and educational

demonstrations for well respected institutions and organizations, ultimately sharing my knowledge with a much broader audience about the future of this rapidly solidifying field of human digital interaction.

- a. VR/AR Lecture Keynote: *Virtually Reality, Virtually Here?*  
Philadelphia Area New Media Association. University Science Center,  
Philadelphia, PA. 2016
- b. VR Lecture Keynote and User Testing Demonstration: *Beyond the Screen - Demystifying*  
VR Philadelphia Area New Media Association. Wharton School of Business, UPenn,  
Philadelphia, PA. 2017
- c. VR Demonstration: *XR Exploration at Jefferson*  
Philly Tech Week, sponsored by Comcast. Kanbar Performance Space,  
Thomas Jefferson University, Philadelphia, PA. 2018
- d. VR Live Demonstration: *Unintended Consequences*  
TedxPhilly. Temple University, Philadelphia, PA. 2019
- e. Cyber Cell VR: Sickle Cell Edition: *Nemours Sickle Cell Science Fair*,  
Nemours Children's Hospital, Wilmington, DE. 2022
- f. TR UN Global Sustainable Development Goals Virtual Reality Game: *TR Excellence Expo*,  
Toms River Digital Arts Academy, Toms River, NJ. 2023
- g. Cyber Cell VR: Sickle Cell Edition: *Nemours Sickle Cell Science Fair*,  
Nemours Children's Hospital, Wilmington, DE. 2023
- h. TRVR Summer Unity Camp: *Outdoor Classroom Design Challenge*,  
Toms River Digital Arts Academy, Toms River, NJ. 2024
- i. Cyber Cell VR: Sickle Cell Edition: *Nemours Sickle Cell Science Fair*,  
Nemours Children's Hospital, Wilmington, DE. 2024

**2. Interactive Design and Software Development for Healthcare and Life Sciences.** During my career I collaborated with an interactive department director and lead software developer at Bristol Myers Squibb to concept and design an educational gaming experience utilizing open source technology from MIT labs. The user experience blended together gamification, software development, and product design to create new knowledge for the organization. While working with Razorfish Health, I had the opportunity to create the first touch screen tablet application for Pfizer focused on data visualization and time based interactions. The goal of the application was educating doctors and physicians. I have also worked on a team at Razorfish Health to help design and concept the first DSM self diagnosing depression mobile application for Pfizer. The application combined quantitative and qualitative self reporting data to help connect doctors and patients regarding treatments and outcomes.

- a. Interactive Designer and Animator, *Operation Educational Game*  
Interactive educational gaming experience. Bristol Myers Squibb, Princeton, NJ. 2009

- b. Senior Interactive Designer, *Pfizer Tablet Touch Screen Application*  
Touch screen tablet application. Razorfish Health, Philadelphia, PA. 2010
- c. Senior Interactive Designer, *Pfizer DSM Depression Diagnosis Tool*  
DSM self reporting depression mobile application. Razorfish Health, Philadelphia, PA. 2012
- d. Creative Director/Design and Development, *Nemours Children's Hospital Center for Cancer and Blood Disorders, Cyber Cell: Sickle Cell VR Experience*. Virtual reality patient education experience for clinical research testing. Nemours, DE. 2022-Present

### **Degrees, Licenses, and Certifications**

- 2020 Conflict of Interest, *CITI Program*, The Collaborative Institutional Training Initiative, Fort Lauderdale, FL
- 2020 Biomedical Research, *CITI Program*, The Collaborative Institutional Training Initiative, Fort Lauderdale, FL
- 2020 Good Clinical Practice, *CITI Program*, The Collaborative Institutional Training Initiative, Fort Lauderdale, FL
- 2020 Master of Science, User Experience and User Interaction, *Thomas Jefferson University*, Summa Cum Lade, Philadelphia, PA
- 2008 Bachelors of Science, Digital Design, *Philadelphia University*, Philadelphia, PA
- 2002 Multimedia and Web Design, *Catonsville Community College*, Baltimore, MD

### **Patents**

System and Method for a Target Reconstruction Process. US Pat Pub #US 2023/0116175.  
Publication Date. April 13, 2023.

### **Publications**

Hildenbrand, Aimee. K. 2024. DESIGNING A VIRTUAL REALITY HEALTH EDUCATION PROGRAM FOR ADOLESCENTS AND YOUNG ADULTS WITH SICKLE CELL DISEASE. *Sickle Cell Association of America*. Best Abstract Oral Presentation.

Clean Sweep: How Sanitization Drones Can Improve Campus Safety.  
EdTech Magazine · Aug 10, 2020