DARREN K. WOODLAND, JR.

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drexel-research-garden

1. EDUCATION

Drexel University — Philadelphia, PA

Ph.D. in Digital Media (Jan. 2022 - Present)

Research Focus: Afrofuturism, real-time audio, immersive experience design, live performance, narrative co-creation

Dissertation: "Sonic Speculocultural Technopoiesis: Black Speculative Tradition as Modification for Embodied Practice," Drexel University. Emil Polyak, Chair Graduate Minor in Computer Science (Sep. 2022 – 2024)

Focus: Software design, user interfaces, machine learning, audio programming

North Carolina State University — Raleigh, NC

M.A.D in Experimental Media Arts (Aug. 2018 - Dec. 2020)

Research Focus: Sonic interaction design, deep listening, extended realities

Thesis: "On Soundscape: Listening as Interaction," North Carolina State University, 2020. Dr. Mark Scearce, Chair

Graduate Certificate in Digital Humanities (May 2019 - Dec. 2020)

Focus: Games in social contexts, ludic networks, game design, game studies

University of South Carolina — Columbia, SC

B.A. (Dual) in Media Arts & Art Studio (Aug. 2013 - Dec. 2017)

Media Arts: Animation, narrative writing, game design

Art Studio: Graphic design, illustration, drawing

2. PUBLICATIONS

Peer-Reviewed Publications

Emil Polyak, Kathi Martin, Rghad Balkhyoor, Arefeh Ahmadi, **Woodland, Darren**, and Varun Mahadev (2024). "Plumes and Pixels: Bridging Digital and Traditional Art in SciArt Education". In: *SIGGRAPH Asia 2024 Educator's Forum.* SA '24. Tokyo, Japan: Association for Computing Machinery. ISBN: 9798400711367. DOI: 10.1145/3680533.3697072. URL: https://doi.org/10.1145/3680533.3697072 [Co-Author]

Darren K. Woodland (2024). "Motifs of the Future Metamorphosis: Afrofuturism in Media Arts and Design". In: *Proceedings of the Media Arts and Design Conference*. United States: Media Arts and Design Association **[Author]**

Non-Peer Reviewed Publications

Darren K. Woodland (2022). *Cybernetic Thrills: Black Ice VR*. Audiokinetic Blog. Blog post discussing the development and design of the Black Ice VR experience. URL: https://blog.audiokinetic.com/[Author]

3. CONFERENCES | TALKS | PRESENTATIONS

Presenter "Research: In Searching," Westphal Creates - Drexel University Westphal College of Media Arts and Design Faculty and Student Research Showcase, 2025

Presenter "Afrofuturists Motifs of Metamorphosis and Transfiguration in Media Arts and Design," Atlantica Conference, Seen from Lagos: African Re-Groundings Symposium, 2024

Presenter "Motifs of the Future Metamorphosis: Afrofuturism in Media Arts and Design," Media Arts and Design Conference, 2024

Presenter "Echoes of Harmonic Threads," Ars Electronica, Expanded Animation Symposium, 2023

4. GRANTS | AWARDS | FELLOWSHIPS

Design Award AIGA of SC InShow 22 Awards for Pop! Art Book Covers, 2017

5. PERFORMANCES | EXHIBITION | CREATIVE WORKS

Digital Portfolio: darrenwoodlandjr.com

VR Application "Black Ice VR" — Pico VR, 2024

Virtual reality experience featuring immersive audio-visual elements

Performance "Home is in Me" — Colorado Conservatory of Dance, 2024

Designed and developed animations and audio elements for stage production

Performance "Gr[i]ef" — Mandell Theater Dance Performance, 2024

Real-time visuals, audio, and interactive systems for live dance performance

Exhibition "WOMB: The Black Wealth Project" — Rankin Scholar Project, 2022

Created visuals and interactive installation for collaborative project

Conference "Black Ice VR" — SIGGRAPH, 2023

Virtual reality experience featuring immersive audio-visual elements

Film Festival "Black Ice VR" — Bucheon International Fantastic Film Festival, 2023

Virtual reality experience featuring immersive audio-visual elements

Film Festival "Black Ice VR" — SXSW Film Festival, 2022

Virtual reality experience featuring immersive audio-visual elements

VR Application "Barnstormers: Determined to Win" — MxReality Lab. Raleigh. NC. 2020

Created high-fidelity character models based on historical references using cutting-edge character creation software for the early development version.

Pop! Art Book Covers — AIGA of SC InShow 22 Awards, 2017

Award-winning graphic design work

Scientific SC — Knowitall.org Animated Video, 2017

Educational animated short (YouTube) on the life of a prominent South Carolinian scientist

6. TEACHING EXPERIENCE

Drexel University — Philadelphia, PA

Graduate Teaching Fellow (Jan. 2022 - Present)

Instructor of Record

GMAP 395: Advanced Game Art

Summer 2025 (Particle Systems, Proceduralism, Modularity, Technical Art)

DIGM 131: Introduction to Scripting for the Digital Content Creation Pipeline

Fall 2024 (Python, Maya, Unity, Tool and Pipeline Development)

GMAP 395: Advanced Game Art

Fall 2024 (Particle Systems, Proceduralism, Modularity, Technical Art)

GMAP 395: Advanced Game Art

Summer 2024 (Particle Systems, Proceduralism, Modularity, Technical Art)

GMAP 345/CS 345/DIGM 545: Game Development Foundations (Graduate/Undergraduate

Cross-List)

Fall 2023 (Frameworks, Unity, Scripting, Game Design Process, Play)

GMAP 345/CS 345: Game Development Foundations (Undergraduate Cross-List)

Fall 2023 (Frameworks, Unity, Scripting, Game Design Process, Play)

GMAP 395: Advanced Game Art

Summer 2023 (Particle Systems, Proceduralism, Modularity, Technical Art)

GMAP 231: Scripting for Game Design (2 sections)

Summer 2023 (Unity, C#, Game Design Frameworks, Scripting Design Patterns)

GMAP 345/CS 345/DIGM 545: Game Development Foundations (Graduate/Undergraduate

Cross-List)

Spring 2023 (Frameworks, Unity, Scripting, Game Design Process, Play)

GMAP 345/CS 345/DIGM 545: Game Development Foundations (Graduate/Undergraduate

Cross-List)

Winter 2023 (Frameworks, Unity, Scripting, Game Design Process, Play)

GMAP 395: Advanced Game Art

Winter 2023 (Particle Systems, Proceduralism, Modularity, Technical Art)

GMAP 231: Scripting for Game Design (2 sections)

Summer 2022 (Unity, C#, Game Design Frameworks, Scripting Design Patterns)

Teaching Assistant

DIGM T580/GMAP T380: Games for Health and Simulation (Graduate/Undergraduate Cross-

List)

Spring 2023 — Instructor: Dr. Paul Diefenbach

Grading assignments, equipment setup for sensors and body tracking, in-class assistance with game design and course knowledge, office hours

GMAP 395: Advanced Game Design and Production

Spring 2022 — Instructor: Kenneth Chen

Grading, in-class student assistance, assignment examples, office hours

ANIM 145: Realtime Visualization (Undergraduate)

Spring 2022 — Instructor: Daniel Rose

In-classroom assistance, grading, student support

GMAP 345: Game Development Foundations (Undergraduate)

Winter 2022 — Instructor: Tom Burdak

Grading, remote student assistance, full assignment examples

North Carolina State University — Raleigh, NC

Graduate Teaching Assistant (Aug. 2018 – May 2019)

ADN 319: Animation I (Undergraduate)

Spring 2018 — Instructor: Patrick Fitzgerald

Assisted in teaching industry-standard video editing and animation software and workflows along with animation principles

7. CURRICULUM DESIGN

Drexel University — Philadelphia, PA

Course Redesign and Development: GMAP 345/DIGM 545/CS 545: Game Development

Foundations

Instructor of Record (2022 – Present)

Assisted in the initial redesign of the undergraduate GMAP 345 course, then served as lead developer to further redesign the curriculum for improved alignment within the game development sequence (GMAP 231, 345, 395). Delivered the redesigned curriculum as instructor of record across undergraduate and graduate cross-listed sections (DIGM 545, CS 545). Course focuses on frameworks, Unity development, scripting methodologies, game design processes, and play theory.

Complete Curriculum Development: GMAP 395: Advanced Game Art

Instructor of Record (2022 – Present)

Developed comprehensive curriculum from inception as instructor of record following departure of previous instructor with no existing course materials. Designed advanced technical game art workflows including particle systems, procedural generation, modular design principles, and technical art production pipelines. Course strategically positioned as capstone in the game art sequence, building upon foundational skills from GMAP 231 and 345.

Collaborative Curriculum Development: DIGM 131: Introduction to Scripting for the Digital Content Creation Pipeline

Instructor of Record (2022 – Present)

Co-designed new foundational course with two fellow PhD students to replace the original introductory scripting curriculum. Led development of syllabus design and course materials, serving as primary instructor for the inaugural course offering. Course introduces Python scripting, Maya integration, Unity workflows, and tool development within digital content creation pipelines.

8. EMPLOYMENT | CONTRACTS | INTERNSHIPS

Drexel University — Philadelphia, PA

Perforce Administrator Assistant (Jan. 2024 – Present)

Manage Perforce version control server, facilitating workflow between students, faculty, and IT infrastructure

Develop documentation and learning resources to streamline version control adoption Develop, implement, and maintain support structures for students and faculty using Perforce

University of North Carolina School of the Arts: Media and Emerging Technology Lab $-\,$

Winston-Salem, NC

Art Director + Technical Artist (Apr. 2021 – Oct. 2021)

Led art direction and asset development for a VR project, creating or compiling 200+ assets Integrated spatial audio and sound design into the production pipeline

Colorado Conservatory of Dance — Denver, CO

Freelance Multimedia Artist (Jan. 2024 - Jul. 2024) [Contract]

Designed and developed animations and audio elements for a live stage dance production Created real-time visuals in Unreal Engine and crafted motion-based animations Integrated and edited multimedia content using DaVinci Resolve to enhance production quality

North Carolina State University - The IntelliMedia Group (Center for Educational Informat-

ics) — Raleigh, NC

Digital Artist + Graduate Research Assistant (May 2019 – Dec. 2020)

Led asset pipeline development, designing, modeling, and animating 2D/3D assets Created assets for educational games and VR training applications

University of South Carolina Department of Information Technology — Columbia, SC

Digital Artist (May 2018 - July 2018) [Contract]

Designed and illustrated a large-format learning map for university-wide IT training

South Carolina Educational Television — Columbia, SC

Digital Media Intern (Jan. 2017 – May 2017) [Internship]

Produced an animated short on the life and achievements of a prominent South Carolinian scientist

9. PROFESSIONAL DEVELOPMENT | MEMBERSHIPS | SERVICES

CITI (Collaborative Institutional Training Initiative) Courses

CITI COI (Conflicts of Interest) - Social Behavior

CITI RCR (Responsible Conduct of Research) - Social Behavior

CITI HSR (Human Subjects Research) - Social Behavior