Daniel Frederick Phelps

Georgia Institute of Technology

School of Literature, Media, and Communication

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Curriculum Vitae

EDUCATION

2024 In Progress
The Georgia Institute of Technology Atlanta, GA
Ph.D., Digital Media ABD,

2021
The Georgia Institute of Technology Atlanta, GA
MS, Digital Media

2011
Hunter College CUNY New York, NY
MFA, Integrated Media Arts

2001
California State University Sacramento, CA
BA, Media Communication

ACADEMIC EMPLOYMENT

2019 to Present   Georgia Institute of Technology
Atlanta, GA   Professor of Record

Developed and implemented the syllabus for LMC 2720, Principles of Visual Design. Was the Professor of Record from 2019 to 2022. I also adapted and proctored the syllabus for LMC 2730, Constructing the Moving Image. Was the Professor of Record from 2022 to 2024.

2015 to 2019   The City University of New York, York College
Queens, NY   Associate Professor

Program Coordinator. Served as an Associate Professor for the Communications Technology Program. Taught Advanced Digital Video, Basic Television Studio Production, Webcasting, Hacking and building, Cinematography, and Advanced Documentary Production.

2007 to 2015   The City University of New York, York College
                  Queens, NY   Adjunct Assistant & Associate Professor

Served as an Adjunct Professor for the Communications Technology Program. Teach Advanced Digital Video, Basic Television Studio Production, Webcasting, Hacking and building, and Advanced Documentary Production in addition to re-writing much of the curriculum over the years to keep the program modern and technologically applicable in today's marketplace.

2015 to 2019   The City University of New York, York College
                  Queens, NY   STEAM Program Coordinator

Coordinator of an interdisciplinary team of student fellows that compete in several NASA-sponsored applied science and programming competitions. The Robotic Mining Competition and NASA Swarmathon serve as the backdrop to undergraduate research in STEAM-related fields. AI Swarm Robotics & Programming. Lunabotics Hardware & Software Design

2006 to 2015   The City University of New York, York College
                  Queens, NY   Multimedia Production Specialist

Manage the York College television studio/multimedia facilities and assist with all Communications Technology (CT) Courses. In charge of budget and technology research & purchasing for the CT Program. Produce all commercial material, including web ads, cable material, and educational videos.

PROFESSIONAL EMPLOYMENT

2024   Central Atlanta Progress (CAP)/Techton-XD
                  Atlanta, GA   Creative Technologist

Creative Technology Consultant and Media Development Specialist for the Woodruff Park/Candler Hotel Spatial Projection Project. I'm currently working with CAP and their partners (CMII, GSU, CDI) to develop a media production framework and implementation on Atlanta's *second* largest "building as a screen" spatial projection. Project will go live in Q2, 2024.

2021 to 2023   Cousins Properties
                  Atlanta, GA   Chief Technology Officer

Technology integration and development engineer for the 725 Ponce *Visions* project. This project provides a 50m X 50m canvas projected on the side of the 725 Ponce mixed-use facility. Utilizing two high powered laser projectors, this project will provide a permanent space for narrative and interactive artistic works. This project will be the largest outdoor 1:1 screen in North America.

2004 to 2006   Royster Productions
                 Los Angeles, CA   Head of Production

Lead Editor/Producer/System Administrator for a variety of broadcast
and non-broadcast productions. Also served as the purchasing/rental manager for all High Definition equipment. Directed and produced all live broadcast events. Also served as the post-production coordinator, overseeing and participating in
all aspects of post-production, from off-line editing to duplication.

2005   Adore Shop Magazine
                 Los Angeles, CA   Photographer

Freelance Photographer for a nationwide fashion magazine. Specialized in prints for sellers and in-magazine catalogue advertisements.

2002 to 2004   Peppers & Associates
                 Sacramento, CA   Chief of Production

Lead Editor / Lead Videographer on two award-winning television shows airing on Sacramento's local ABC affiliate, News10. Headed the creation of all motion graphics, print media, DVD authoring, and DVD offset art production.

TEACHING EXPERIENCE

Fall 2022+   The Georgia Institute of Technology
                 Atlanta, GA   Constructing the Moving Image (LMC2730)

Course Description: Constructing the Moving Image is a multi-modal Principles of Visual Design is a studio course in which students will be trained to visually organize and present ideas. The course will be taught in the form of lectures, projects, in-class activities, and discussions that will cover topics such as color theory, typography, composition and layout. You will learn the basics of visual design that are required to communicate your ideas clearly and effectively on a wide variety of platforms.

Fall 2019+   The Georgia Institute of Technology
                 Atlanta, GA   Principles of Visual Design (LMC2720)

Course Description: Principles of Visual Design is a studio course in which students will be trained to visually organize and present ideas. The course will be taught in the form of lectures, projects, in-class activities, and discussions that will cover topics such as color theory, typography, composition and layout. You will learn the basics of visual design that are required to communicate your ideas clearly and effectively on a wide variety of platforms.

Spring 2018   York College CUNY
                 Queens, NY   Virtual Reality Production (CT419)

Course Description: An introduction to Virtual Reality production and post-production through the practical application. In this course, students earn the history and techniques of VR, Stereoscopic, 180º/360º and multi-channel filmmaking. This course will directly contribute to The Future American Retrospective project.

Fall 2017+   York College CUNY
            Queens, NY   Portrait Documentary (CT210)

Course Description: Introduction to storytelling techniques with respect to the subject and viewer, in-context. Students learn the basics of videography and editing while completing a comprehensive look into a character of their choosing. Non-fiction capstone course.

Summer 2014   York College CUNY
            Queens, NY   The Drone Workshop

Course Description: A summer program dedicated to building, from the ground-up, an autonomous Multi-copter Drone. Along with Colleagues from BMCC and students from across CUNY, this 8-week summer workshop program exposed undergraduates to the world of autonomous aerial platforms.

Fall 2013+   York College CUNY
             Queens, NY   Building & Hacking (CT137)

Course Description: An introduction to electronics, programming and prototyping through building, rebuilding, modifying, and creating software, electronic hardware, or anything else, either to make it better or faster or to give it added features or to make it do something it was never intended to do.

Fall 2009+   York College CUNY
             Queens, NY   Cinematography (CT355)

Course Description: Introduction and mastery of lighting and advanced camera techniques for the field of non-fiction television production.

Fall 2007+   York College CUNY
             Queens, NY   Internship (CT490/491)

Course Description: Internship coordination for all non-fiction television and web design concentration students.

Spring 2007+   York College CUNY
             Queens, NY   Studio Television Production (CT240)

Course Description: Techniques in contemporary digital television production including multi-camera techniques, lighting, sound and post-production for studio elements as well as outside segment production.

Fall 2008+   York College CUNY
                  Queens, NY   Intro to Motion Graphics (CT345)

Course Description: Introduction to the techniques of motion graphics production for television and video: video effects and animation; lighting and shooting of blue screens; and layering of video sequences. Using non-linear editing workstations, students will produce videos using current video and effects software.

Fall 2013   York College CUNY
                  Queens, NY   Teacher Education (AC230)

Course Description: (Guest Lecturer) Explored the rules and rubrics around learner-based teaching of 3D printing. Provided lectures on the art of 3D design for students.

Spring 2012+   York College CUNY
                  Queens, NY   Advanced Documentary
                                        Production (CT355)

Course Description: Fundamentals of video documentary production: pre-production planning, budgeting, scripting, shooting, editing, and directing. Students in small groups learn the theory and techniques of using portable digital video cameras, lighting and sound equipment in field work and complete digital editing with titles, voiceover, music, and special effects in a studio setting. A brief history and role of the documentary is also included.

Spring 2011+   York College CUNY
                  Queens, NY   Webcasting (CT380)

Course Description: Overview of streaming media solutions, delving into the technologies of compression and delivery. The history of streaming media and the implementation of various multimedia architectures are included. Principles and techniques of setting up and configuring various streaming media servers, and examining their impact on web distribution.

Spring 2011+   York College CUNY
                  Queens, NY   Advanced Broadcast (JOUR389)

Course Description: (Guest Lecturer) Building on Journalism 282, a hands-on approach to more sophisticated reporting and interviewing techniques and writing formats used in radio and television broadcast news. Teams write packages to be edited and aired in the Television Studio.

FILMS, SCREENINGS, & EXHIBITIONS

Films

    Director/Cinematographer/Editor:
        Augmented Interact Layers (AIL's) (2020) • https://bit.ly/3lBFDN6
        Architecture & AR Viewports (2019) • https://bit.ly/3XDHsqg
        The Future American Retrospective *VR* (2019),• https://bit.ly/3XvHIHO
        StartUpNY @ York College; *Commercial (*2015),• http://bit.ly/1Jvw8nr
        The Domino Effect; *Documentary* (2012), • https://bit.ly/3xtpITN
        The Alley 3D; *Short* (2011), • http://bit.ly/WLzTeb
        FIT 3D Live; *3D Live Simulcast* (2010), • https://bit.ly/3xzTvu0
        Salesman; *Short* (2009), • http://bit.ly/153buUW
        Shanxi – CUNY Exchange; *Documentary* (2009), • http://bit.ly/XmEzFF
        Auditory Artist; *Documentary* (2008), • http://bit.ly/YwBUu2
        Prospect Dreaming; *Documentary* (2009), • http://bit.ly/139ffW9
        Draft My Paper; *Educational* (2006), • http://bit.ly/Xir3WF
        US Open of Racquetball; *Live Televised* (2005-2006)

    Cinematographer/Editor:
        Because I Row; *Commercial* (2011), • http://bit.ly/XKDExO
        The House of Pete & Travis; *Shorts* (2009) • http://bit.ly/12HskdB
        NASA SEMAA Program; *Documentary* (2009), • http://bit.ly/15s6IS8
        Ed Koch Promo; *Commercial* (2007), • http://bit.ly/WLCvJ2
        The Grass is Greener; *Short* (2005)
        3rd Alarm; *TV Magazine* (2002-2004)
        City Beat; *TV Magazine* (2002-2004)

Screenings

    The Domino Effect
        The New York Preservation Archive Project Film Festival
        JCAL, Jamaica Center for the Arts
        Bedford and Bowery, New York Magazine
        American Sociology Association Annual 2013
        The Pratt Institute
        Planners Network Conference 2013
        The Woods, presented by NAG Brooklyn
        DocWorks NYC @ The CUNY Grad Center
        Greenpoint Film Festival
        Williamsburg International Film Festival
        The Brooklyn Society for Ethical Culture, presented by Filmwax
        The Urban Planning Program at Hunter College
        The Urban Planning Program at Brooklyn College

    The Alley 3D
        BeFilm International Film Festival
        The New York Stereoscopic Society @ The Museum of Natural History

Salesman
> IMA Interactive Show

Draft My Paper
> The Conference on College Composition and Communication (CCCC)
> Writing Across the Curriculum Conference at the CUNY Grad Center

Exhibitions

The Future American Retrospective VR: LGBTQ+ History Queens (2019)
> Installation hosted in three simultaneous locations; The Gallery @ York College, Jamaica, NY, Queens Pride, and a traveling installation with the sixty-eight-location, Queens Public Library. This installation will showcase the linear narrative VR form of The Future American Retrospective in VR and multi-channel space. • https://bit.ly/35UTO5r

Deconstructing Design: The Art Inside our Techno-Relics (2017)
> The Gallery @ York College, Jamaica, NY. Co-Curation. The examination of the interconnectedness of technology, art, games, and music brought to the surface questions such as "How do manufactured electronic objects influence or reflect our individuality?". Taking technology apart allows us to peer into past innovation and construction and then to reposition the resulting parts in works of art.

Peripheral Visions; Casabella and Domus Interactive (2012)
> The Lang Gallery, NY, NY. iPad art installation. Interactive analysis of Casabella and Domus magazines from 1950-present. Presented in conjunction with the Peripheral Visions art show, this piece used a Jailbroken iPad and heavily modified Prezi presentation software.
> • https://bit.ly/3XztQfF

Winter Abandon (2010)
> iArt Interactive Showcase, NY, NY. Arduino based art installation. 3D interactive video interfacing with MAX/MSP/JITTER. Exploring data that surrounds NYC homeless during the long winter months.

FIT 3D Live (2010)
> *The Future of Fashion*, NY, NY. Presented at the Fashion Institute of Technology. Fully immersive, stereoscopic 3D simulcast. The first 3D simulcast runway show in the United States. Commissioned to design and engineer a custom 3D rig and signal chain developed by Daniel Phelps for FIT & UVPHACTORY. • https://bit.ly/3Zd3Ck8

PUBLICATIONS AND PRESENTATIONS

The Affordances of Augmented Intermediate Layers (AIL's) for Scientific Applications. (2021)
> Presentation at Oak Ridge National Laboratory on my research into the use of transparent screens for Augmented Reality applications for the applied sciences. Presentation arranged for, and given to, the 80+ members Visual Informatics for Science and Technology Advances (VISTA) Lab at ORNL.
> • https://bit.ly/3lFgSjg

Virtual Reality and Robotics: A Gateway to STEM Outside of the Classroom. (2018)
> Presentation at Fact2 AR/VR Symposium at SUNY Albany. This presentation focused on the R&D efforts of the interdisciplinary team of robotics students and creative storytellers at York College.

Showcasing the customized VR toolset created for non-fiction storytelling in VR, this hands-on demonstration explored the world of highly maneuverable VR mecanum platforms and off-road telerobotically controlled camera control systems created at York College. This presentation marked the public debut of The Future American Retrospective Project.

360 Video an VR Realities in Filmmaking. (2018)

Invited presentation at the Script 2 Screen Symposium hosted by the IFC Center and The New York Black Filmmakers Collective. The 2-hour talk demonstrated advanced filmmaking strategies for VR 360 spherical video and 3D VR techniques. Deployment and post-production considerations were explored as well as the future of the medium.

Rapid Prototyping for NASA Competitions in Higher Education. (2017)

Presentation at Construct3D Conference at Duke University. Using years of experience in NASA research competitions, this presentation discusses how under-funded, minority serving, urban institutions use rapid prototyping to compete in NASA sponsored competitions on a national level with the top engineering schools in the nation. • https://bit.ly/3k1eZgk

Hacking & Building: An Understanding of our Future Through Science Fiction and Future Fiction. (2016)

Invited presentation in the Amazing Stories Symposium, New York City College of Technology. Presentation focused on the use of Science Fiction readings in the classroom to spur creativity in real world research.

Swarm Robotics and NASA's Crowdsourcing of Technology. (2016)

Invited presentation to the engineering Faculty & Staff of New York City College of Technology's College, School of Engineering. Outlined and discussed NASA's goals with Higher Education crowd-sourcing of technology such as physical designs and programming for use in off-world exploration of our solar system.

Creating Diverse Communities Within Interdisciplinary STEM Research Competitions. (2016)

Part of the 2016 Mellon Diversity Project Conference: Creating Diverse and Inclusive Communities. This 60-minute presentation discussed strategies that created a diverse team and inclusive atmosphere for several STEM initiatives at York College, including the creation of the York Astrobotics Program in 2014.

CUNY Supporting the Nation of Makers Initiative. (2016)

CUNY IT Conference panel presentation. Interdisciplinary STEAM cohort, York College. This panel presentation consisted of several CUNY campuses that harbor Fabrication Labs, Makerspaces, and Interdisciplinary Research areas. Discussion centered around strategies to create inclusiveness and success in these spaces seeking alternative funding and administrative commitment.

MedizDroids Project: Ultra-Low Cost, Low-Altitude, Affordable and Sustainable UAV Multicopter Drones For Mosquito Vector Control in Malaria Disease Management. IEEE Global Humanitarian Technology Journal 2014. (2014)

Co-Author & Presenter. The goal of the MedizDroid Project is to research the affordable and sustainable use of aerial platforms (UAV, UAS, MAVs, drones, multi-copters and multi-rotors), briefly malaria mosquito control drones, for mosquito vector control and suppression.
• http://bit.ly/1OUTDtV

Makerspaces, Maker Pedagogy and the Promise of a Maker Commons. CUNY IT Conference. (2013)
> Co-Presenter. Promotion of how Makerspaces provide access to materials, tools and technologies that allow for hands-on exploration and participatory learning across traditional, and non-traditional, pedagogy.

Peripheral Visions: Italian Photography in Context, 1950s-Present. Charta Books. ISBN 8881588374 (2012)
> Contributing author. Exploring a work by Italian landscape photographer, Walter Niedermayr.
> •http://amzn.to/12HrBJr

The Domino Effect: How Development in New York City is Often Bittersweet. Provost Lecture Series. (2011)
> Part of the 2012 York College Provost Lecture Series, this campus- wide presentation explored the public data used in the storytelling of The Domino Effect. • http://bit.ly/XndO3K

Provisional Patent Awarded. iPhoneoscope, 3D goggles for the iPhone (2010)
> Designed and pursued a patent for a set of 3D goggles for the iPhone and other smartphone devices. Provisional Patent was awarded in May of 2009. Patent process was abandoned due the introduction of prior art and the pursuance of a more open-source approach to future design work.
> • https://bit.ly/3K724nF

iPads on Campus: A Look at the Positives and Pitfalls of Adopting Emerging Technology Platforms. CUNY IT Conference. (2010)
> Co-Presenter. Presented ways that remote desktop and secure sign-in could help bridge the divide between desktop functionality and tablet.

NYC, Home of the Homeless. The Journal for Undergraduate Multimedia Projects. (2010)
> Instructor reflection on the student research and production approach for Anna Charles' *NYC, Home of the Homeless.* • http://bit.ly/2EgpQwg

Content Management in the Cloud: The End of Locally Hosted Media. CUNY IT Conference. (2009)
> Co-Presenter. Offered ways to circumvent CUNY IT departments to keep storage costs down, while increasing reliability/flexibility in streaming video.

Changing Realities and Creating WAC Synergies Through Film: A Case Study of Institutional Embeddedness in Multiple Media. The Conference on College Composition and Communication, (CCCC). (2008)
> Co-Presenter. Reflection on the student/researcher production process and approach to educational filmmaking for the film *Draft My Paper.*

AWARDS AND HONORS

Create-X I2P Fellow
> (2022)

Presidential Fellowship
The Georgia Institute of Technology
> (2019-2023)

Telly Award
        (2003, 2004)

International Communicator Award
        (2002)

National Football Foundation & College Football Hall of Fame,
Athlete of the Year
        (2002)

NCAA All Academic Award
        (1998, 1999, 2000, 2001, 2002)

Dr. Miendel Academic
Excellence Award
        (1998, 1999, 2000, 2001)

NOTABLE ACHIEVEMENTS

Invited Startup for the Startup Launch, Create-X Program sponsored by Georgia Tech and ATDC.
(Summer 2023)
        This startup competition provides support to students perusing research in emerging fields. As the
        startup's founder, ARUI (AR UI) leverages novel AR experiences for aerospace, heavy industry,
        automotive and more. ARUI's interactive windscreen provide an advances heads-up display for
        operators across industries, increasing safety and productivity through awareness and data
        availability.

Finalist for the Create-X Program sponsored by Georgia Tech and ATDC.
(Spring 2020)
        This startup competition provides support to students perusing research in emerging fields. As the
        startup's founder, XR Works can be describes as a workforce development company that delivers
        custom extended reality (XR) software solutions as well as proven XR learning methods with the aim
        of vetting, training, and preparing low-income individuals for blue-collar work. We want to connect
        emerging technology vendors, local government, and industry leaders with an energetic urban
        workforce. • https://bit.ly/3Ij8QUF

25k NASA MSI Technology Grant for the 2015 Robotic Mining Competition.
(2015)
        Primary Investigator and Lead Faculty Advisor for the York College Robotic Mining Team. This yearly
        competition is held at the NASA Kennedy Space Center to challenge undergraduate students to
        Engineer and build a robotic vehicle that simulates mining regolith on the surface of the Moon and
        Mars.

Commissioned by the York College SEMAA Program to build Technology demos of Virtual Reality, 3D Scanning & 3D Printing.
(2012-2014)

> Designed and built a "Virtual Reality Station" for use by the Science, Engineering, Mathematics and Aerospace Academy at York College. Also Hand-built a 3D printer and scanner for use in workshops as a Technology Volunteer.

RESEARCH AND INSTITUTIONAL FUNDS

Create-X, Startup Launch (2023)
35k

Georgia Tech/ORNL Seed Fund Augmented Interactive Layers (2020)
3K

LGBTQ+ VR Installation & Recording Funds, The Wagner Archives (2018/2019)
19k

NASA/NY Space Grant Consortium Student Robotic Fellowship Program (2017-2019)
14k

PSC/CUNY Research Foundation Grant. Documentary, The Future American Retrospective (2017)
12k

City Council RESOa Fund Co-Author, Fine Arts Digital Convergence Center (2017)
2m

NASA/NY Space Grant Consortium (2016-2019)
8k

NASA MSI Swarmathon Grant (2016-2019)
24k

NASA MSI Lunabotics Grant (2015)
25k

Crowd Sourced, Kickstarter Campaign for *The Domino Effect (2011)*
15k

PSC/CUNY HEO Professional Development Fund (2008/2009/2010)
12k