Daniel Phelps

916-759-2020 • danielphelps@mac.com

Education

PhD Candidate (in progress)
The Georgia Institute of Technology
Digital Media

MS Candidate (in progress)
The Georgia Institute of Technology
Digital Media

Hunter College
New York, NY
MFA, Integrated Media Arts

California State University
Sacramento, CA
BS, Media Communication

Publications & Presentations

The Affordances of Augmented Interact 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.

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.

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.

Research Funds

Georgia Tech/ORNL
Transparent Screens in AR
(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. VR/Telerobotics (2017)
12k

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

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

NASA Swarmathon
Grant (2016-2019)
24k

NASA MSI Robotics Grant (2015)
25k

City Council RESOa Fund (2014)
Digital Fabrication FDM Printers
200k

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

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

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 Mosquito Vector Control in Malaria Disease Management
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/1QUTDtV

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. • http://bit.ly/UDalMn

Awards & Honors

Telly Award (2004)
Telly Award (2003)
International Communicator Award (2002)
National Football Foundation & College Football Hall of Fame, Athlete of the Year (2002)
NCAA All Academic Award (1998-2002)
Dr. Miendel Academic Excellence Award (1998-2001)
National Deans List (1999/2000)

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.*

Skills

Advanced Aptitude;

3 Camera Studio Systems, HD/4K/VR Video Production & Workflows, Documentary Production Workflows, Makerbot Replicator G Production Environments, RepRap CURA, ShopBot V-Varve Production Environments, 3D Video Production & Editing, Arduino I/O & Coding Environments, Pro Tools 10, Adobe Creative Cloud (PP, AE, PS, AME, SG), Final Cut Pro Studio 7/X, MAX/MSP/JITTER, Wordpress, Blackboard, Social Media Theory & Application, OSX, Windows, iOS, Linux OS, Jailbreaking, 1337 Speak

Hardware;

ENG/SLR/Cinema Cameras, MBOX, Replicator 2, FDM Printers, ShopBot Desktop, Raspberry Pi, Arduino, Audio Mixing Consoles, Field Audio Recording Equipment, Studio/Field Lighting Equipment, 12+ Video Switching Consoles, A/V Patch Bays, Blackmagic Cards & Converters, Networked RAID Environments

TEACHING EXPERIENCE

Fall 2020+ — 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 clearly and effectively communicate your ideas on a wide variety of platforms.

Spring 2018 — York College CUNY, Jamaica, 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, 180°/360° and multi channel filmmaking. This course will directly contribute to The Future American Retrospective project.

Fall 2017+ **York College CUNY**
Jamaica, 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**
Jamaica, NY **The Drone Workshop**

Course Description: A summer program dedicated to building, from the ground-up, an autonomous Multicopter 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**
Jamaica, 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**
Jamaica, 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**
Jamaica, NY **Internship (CT490/491)**

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

Spring 2007+ **York College CUNY**
Jamaica, 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**
Jamaica, 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**
Jamaica, 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**
Jamaica, 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**
Jamaica, 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**
Jamaica, 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

POSITIONS HELD

2015 to 2018 **York College CUNY**
Jamaica, NY **Associate Professor**

Program Co-Coordinator. Serve as an Associate Professor for the Communications Technology Program. Teach Advanced Digital Video, Basic Television Studio Production, Webcasting, Hacking & Building, Cinematography, and Advanced Documentary Production.

2015 to 2018 **York College CUNY**
Jamaica, NY **Astrobotics 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 STEM related fields.

2007 to 2015 **York College CUNY**
Jamaica, NY **Adjunct Assistant Professor**

Served as an Adjunct Professor for the Communications Technology Program. Teach Advanced Digital Video, Basic Television Studio Production, Webcasting, Hacking & 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 todays marketplace.

2006 to 2015 **York College CUNY**
Jamaica, 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 from York College.

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. Designed and maintained the IT infrastructure for Peppers & Associates. Also headed the creation of all motion graphics, print media, DVD authoring, and DVD offset art production.

NOTABLE ACHIEVEMENTS

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 en urban workforce. http://xrworks.org/

New major concentration program design in the area of Communications Technology; Digital Fabrication
(Spring 2019)

Submitted to the Curriculum Committee a new Major Concentration in Emerging Technology for the York College Communications Technology Program. The new Major explores emerging mediums and technologies as they apply to Science, Art, Technology, Engineering and Entrepreneurship. This includes 3D printing, Laser Manufacturing, Embedded Electronics, Crowd-Sourced Invention Models and more.

Co-Author of the Digital Convergence Center @ York College
(2020 estimated completion)

The Digital convergence Center is an interdisciplinary research and incubation space for Student and Faculty research support. Consisting of the Digital Knowledge Center, Digital Incubator Lab, and and Active Learning Classroom, this space is designed with program expansion and technological creation with the latest digital fabrication tools and support staff.

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.

200k Secured to upgrade the TV Studio Space at York College.
(2014)

Proposed TV studio retrofit to the NY City Council and received $200,000 in Reso-A funding to build-out a technical Makerspace to the existing York College TV Studio Control Room. New space intended to support advanced technical pedagogy associated with our non-fiction TV concentration and other S.T.E.A.M. curriculum.

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.

Engineered and integrated The York College Television Studio's conversion from standard to high definition.
(2010)

Designed and self installed the 100k upgrade to the aging video system signal chain at the York College TV Studio. Upgrades and integration included; HD camera system, multi-core infrastructure, raid 5 recording system, CCU integration, Character generation, Chroma key, multi-viewer incorporation, 12 channel switcher, and internet streaming capability.

Designed and managed installation of a new lighting system for The York College Television Studio.
(2010)

Designed and managed 45k upgrade to the aging York College TV Studio lighting grid. System went from a 70's style "hard patch" system to a fully DMX controlled, 48 channel, two bus, programmable board.

Proposed and procured over 225k worth of funding from the Technology Fee budget.
(2007-2014)

Yearly proposals are written to the York College Tech Fee Committee to provide continued technology support for the Communications Technology Program. Funds are used for field cameras, lighting, new edit suites, lenses, camera R&D, studio expendables, new teaching spaces and more.

Program development & support for the Communications Technology Program.
(Continuing)

Designed and implemented new curriculum for the CT program to modernize the major. Development goals were to increase first year retention, remain competitive with similar CUNY programs, and increase the quality of student work coming out of the major. In total, 9 new syllabi were written, accepted, and included in the 2013 Chancellor's Report.

FILMS, SCREENINGS, EXHIBITIONS, PUBLICATIONS, & PRESENTATIONS

Films

Director/Cinematographer/Editor:

Affordances of Augmented Interact Layers (AIL's); Research (2019)
The Future American Retrospective *VR* (2019),• http://www.farvr.org/
StartUpNY @ York College; *Commercial* (2015),• http://bit.ly/1Jvw8nr
The Domino Effect; *Documentary* (2012), • http://bit.ly/11SJ95X
The Alley 3D; *Short* (2011), • http://bit.ly/WLzTeb
FIT 3D Live; *3D Live Simulcast* (2010), • http://bit.ly/2G2zK6u
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)
This show will be hosted in TWO simultaneous locations;
The Gallery @ York College, Jamaica, NY 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. • http://bit.ly/WMRuCC

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. • http://bit.ly/2G2zK6u**