## **Summary**

Artist and technologist Daniel Gene Pillis is currently Assistant Director with the Council for Science & Technology at Princeton University. He creates work at the intersection of science, technology, queer computing and media archeaology. Their research interests are centered on the function of simulation and representation in human culture.

#### Education

2016 Carnegie Mellon University, Pittsburgh, PA

Master of Fine Arts, focusing on Virtual Reality & Robotics History, School of Art

Full Tuition Scholarship, 2014–2015 (Competitive University-Wide Fellowship) Thesis Title: "The Hidden Line Problem: Simulating the Human Experience" Thesis Advisors:

Dr. Ivan E. Sutherland, PhD, University of Portland, Oregon

Dr. Jessica Hodgins, PhD, Professor of Computer Science, Carnegie Mellon

James Duesing, Professor of Art, Carnegie Mellon

2011 Rutgers University, New Brunswick, NJ

Bachelor of Arts in Cognitive Science, focus in Psychology, Literature & Visual Art

Full Tuition Scholarship, 2010–2011 Dean's List, 2009-2011 Faculty Advisors:

Dr. Henry Turner, Rutgers University, Department of English

Dr. Gretchen Chapman, Psychology Chair, Rutgers University Cognitive Science

Ardele Lister, Chair of Moving Image, Rutgers University School of Art

#### **Positions**

2020 – Assistant Director, Council on Science & Technology Studiolab, Princeton University

- Direct the vision of the StudioLab, an inclusive and interdisciplinary space for technology, experimentation and creativity
- Explore innovative approaches to "making", focusing on interdisciplinary collaboration; integrating science, engineering, art and intermedia
- Cultivate collaborative relationships with colleagues throughout Princeton University, Integrate poetry, programming, coding and creating in outreach and pedagogy
- Queer conventional approaches to the studio, the lab, and the "makerspace"

# 2018 – 2020 SIGGRAPH Diversity & Inclusivity Committee ACM SIGGRAPH International Conference

- Collaborate with industry peers to cultivate diversity and inclusivity in computer graphics and interactive techniques
- Plan panels, presentations and conference content, engaging audiences in issues relating to gender theory, racial injustice, queer studies and intersectionality
- Host annual Diversity & Inclusion Summits, encouraging conversations about best practices for cultivating inclusive practices in animation, interactive graphics and CGI

#### 2018 Robotics Education Consultant

Gujarat Science Center, Ahmedabad, India

- Visiting consultant on Robotics Museum in development at the Gujarat Science Center
- Collaborated with design firms, officials from the India Government, and robotics programmers
- Consulted on the development and creation of robotics/science exhibits

#### 2018 Researcher-in-Residence

Innovation Media Research Center, University of Maine

- Presented demos for a course tilted *Artificial Intelligence and Art*, taught with Prof. Sofian Audry using SoftBank's Nao and the Oculus Rift
- Developed interactive Unity applications with Augmented Reality for IOS applications
- Presented a lecture overview of work, visited and consulted graduate students
- Consulted on the development of a Virtual Reality Lab in development in studio spaces

#### 2016–18 Research Associate, The Robotics Institute

School of Computer Science, Carnegie Mellon University

- Artist-in-Residence in Dr. Christopher Atkeson's soft robotics laboratory
- Developed interactive robotics virtual reality projects for HTC Vive VR headset
- Assisted research using SoftBank Nao, Boston Dynamics Little Dog, Rethink's Baxter
- Managed Robot Museum, a physical collection of robots and a social media group
- Created video tutorials for programming and robotics education
- Proposal accepted for presentation of an overview of our work at iRos Robotics conference, Vancouver B.C.

#### 2017 Virtual Reality Developer

Federico Solmi Studio, New York, New York

- Developed virtual reality experience for Ars Electronica and Frankfurt Music Hall
- Created interactive environment in Unity, custom rigged VR hands, animated shaders, implemented 3D spatial audio
- Collaborated with agile development methodology and SCRUM workflow in studio environment

## 2016 Virtual Reality Consultant Artsy, New York, NY

- Assisted in project development for a collaborative Gucci/Facebook event in a projection mapped dome during Art Basel, Miami
- Responsible for converting 3D video artworks into interactive Facebook 360° experiences
- Collaborated with artists Jon Rafman, Jacolby Satterwhite and Rachel Rossin to edit and develop 360° content from their artworks into cinematic VR experiences

#### 2016 Theatre Technician

The Wooster Group, Performing Garage

- Assisted the artist Deville Cohen during a residency to develop new work, Flatland
- Developed video projection mapping timings with Isadora software, Adobe Premiere and Max MSP
- Collaborated with artist to ensure that visual, audio and performance elements functioned with custom kinetic sculptures and stage design components

#### 2015-16 Curatorial Fellow

Posner Center Rare Book Collection, Carnegie Mellon University

- Collaborated with computer scientist Ivan Sutherland to tell the story of the invention of the first virtual reality headset
- Developed digital humanities research overlapping the fields of computer science, computer graphics and automata
- Curated large scale exhibit with rare books, robotics, and interactive virtual reality experience
- Printed images, text, edited and designed documents, coded and developed VR application
- Coordinated invited lectures of Boston Dynamic's Marc Raibert and Ivan Sutherland, jointly hosted by the School of Art and the Robotics Institute

#### 2013-16 Graduate Research Assistant

School of Art/School of Computer Science, Carnegie Mellon University

- Learned and developed workflows with new technologies to assist faculty with projects
- Instructed on the use of motion capture facilities, capture, rigging and re-animating data
- Taught storyboarding, video editing, 3D modeling and animation workshops
- Aided in students development of advanced technical skills like cloth simulations, render layers & character rigging, as well as smoke, fire, and technical simulations

## 015 Gallery Educator

David Zwirner Gallery, NY, NY

- Education and outreach for exhibition on Light and Space artist De Wain Valentine
- Discuss and present on works to the public including collectors, visiting researchers and critics

#### 2014 Artist's Assistant

Skowhegan Residency, Maine

- Provided technical and administrative support for artist Thomas Lanigan-Schmidt following his 2013 Museum of Modern Art retrospective
- Managed correspondence as artist's representative to plan visiting lectures, museum exhibitions, and gallery exhibitions
- Traveled with artist for two weeks to Skowhegan, Maine, orchestrated daily agenda, studio visits, public lecture and events

### 2011-13 Digital Archivist

Elizabeth Dee Gallery, New York, NY

- Technical manager for all exhibits, hardware, software and technology infrastructure for digital media based fine arts exhibits
- Designed and edited HTML/CSS for Wordpress CMS
- Organized and maintained media database, scanned and processed image portfolios
- Produced high resolution photography of artworks and exhibition documentation
- Developed Sketchup models, 3D diagrams and interactive mockups of exhibitions

## 2007-11 Research Assistant, Medical Decision Making Laboratory Rutgers University, New Brunswick, NJ

Leap Motion

- Conducted research using a program for simulation of game theory based scenarios

Computer Vision

Networking

- Compiled user feedback data for analysis, developed surveys and metrics
- Contributed to research literature and supported faculty as needed

#### **Technical Qualifications**

#### **Software**

HTC Vive

| Maya<br>Autodesk Software   | Substance Designer<br>Hololens Development | Unity<br>Unreal                      | ZBrush<br>Adobe Suite        |
|-----------------------------|--|--------------------------------------|------------------------------|
| Hardware                    |  |                                      |                              |
| Raspberry Pi<br>3D Printing | Arduino<br>Computer Repair                 | Microcomputers Display Configuration | Laser Cutting<br>Woodworking |
| General Skills              |  |                                      |                              |
| Windows 10                  | Mac OS                                     | Ubuntu                               | Oculus                       |

## **Teaching Experience & Academic Service**

2019 Invited Lecture, Imitation of Life, VR Workshop, Cooper Union, New York, NY

Invited Lecture, SIGGRAPH Asia, Brisbane, Australia

Panel member, Rendering Gender, with Jacob Gaboury, Bo Ruberg, Siggraph Conference,

Vancouver, BC

2018 Organizer, Diversity and Inclusion Summit, Siggraph Conference, Vancouver, BC

Founder, "Others" in Computer Graphics, Siggraph Conference, Vancouver, BC

Invited Lecture, Robotics and the History of the Humanoid, Lecture, University of Maine IMRC,

Orono, MN

Invited Lecture, Introduction to Augmented Reality using ARKit, Workshop, University of Maine

IMRC, Orono, MN

Visiting Lecturer, Artificial Intelligence and Art, with Prof. Sofian Audry, University of Maine IMRC,

Orono, MN

2017 Invited Lecture, Towards an Artist in the Lab Framework, iRos Robotics Conference, Workshop,

Vancouver, BC

Science Educator, with Dr. Chris Atkeson, Robotics Institute, Carnegie Mellon University,

Pittsburgh PA

Visiting Lecturer, Figure Drawing for Humanoid Robots, Columbia University School of the Arts,

New York, NY

Visiting Critic, Physical Computing, Carnegie Mellon University, Pittsburgh, PA

2016 Teaching Assistant, Animation, Art & Technology, Teaching Assistant

Teaching Assistant, Technical Character Animation, Assistant Prof. Spencer Diaz, Carnegie Mellon

University, Pittsburgh, PA

Visiting Critic, Senior Studio, Carnegie Mellon University, Pittsburgh, PA

Visiting Lecturer, Six X Eight Artist Lecture Series, Silver Eye Center for Photography, Pittsburgh

2015 Teaching Assistant, Experimental Animation, Professor Jessica Hodgins (C.S.), Professor

James Duesing (Art), Carnegie Mellon University, Pittsburgh, PA

Teaching Assistant, Concept Studio, Space and Time, Visiting Prof. Jonathan Armistead,

Carnegie Mellon University, Pittsburgh, PA

Committee Member, Open Engagement Public Arts Project Selection, Pittsburgh, PA

Undergraduate Review Committee, Carnegie Mellon University, Pittsburgh, PA

2014 Teaching Assistant, Electronic Media Studio, Prof. Paolo Pederecini, Carnegie Mellon University,

Pittsburgh, PA

## **Selected Projects and Exhibitions**

2019 Index Art Center, New & Improved, curated by Sophie Sobers, Newark, NJ

Science Festival, The Institute for Creativity, Art, and Technology, Virginia Tech, Blacksburg VA

Visual Language of Chromatin Architecture, ICAT Day, The Institute for Creativity, Art, and

Technology, Virginia Tech, Blacksburg VA

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Curator, *Open at the Source*, Exhibit on the intersection between Art & Science, The Institute for Creativity, Art, and Technology, Virginia Tech, Blacksburg VA

2018 SIGGRAPH Art Gallery, Vancouver, Canada

The Blue Plate, University of Mary Washington, Fredericksburg, VA

Mainframe, Mint Museum, Charlotte, NC

2017 Robot Museum, Interstate Projects, Brooklyn, NY

Et Tu, Art Brute? Andrew Edlin Gallery, New York, NY

2016 Grandmother's House, Space Gallery, Pittsburgh, PA

Virtual Newell/Simon Simulation, Miller Gallery, Carnegie Mellon MFA Thesis Show, Pittsburgh, PA

Ivan Sutherland's Trojan Cockroach, Posner Center, Carnegie Mellon, Pittsburgh, PA

2015 Grandmother's House, Little Berlin, Philadelphia, PA

An Evening with Cara Benedetto, Performance, Museum of Contemporary Art, Cleveland, OH The Blue Plate: History of Computer Graphics, Carnegie Mellon University, Pittsburgh, PA

Intergalactic Immigration Office, curated by Jen Delos Reyes, Open Engagement 2015, Pittsburgh,

PA

2014 Andy Warhola's Living Room, The Warhol Museum, Pittsburgh, PA

City of Lost Men, Kresge Theatre, Carnegie Mellon University, Pittsburgh, PA

2013 Grandmothers House, 4022 Woolslayer Way, Pittsburgh, PA

Digital Archive 2011-2013, curated by Rebecca Jampol, Gateway Projects, Newark Penn Station,

Newark, NJ

2012 Queer Profiles in Courage, curated by Christopher Mitchell, Leslie/Lohman Museum of Gay &

Lesbian Art, NY, NY

2010 Mix23 NYC Experimental LGBTQ Film Festival, Theatre for the New City, NY, NY

2009 Last Days of the Iron Maiden, Gallery Aferro, Newark, NJ

Mason Gross BFA, Rutgers University, New Brunswick, NJ

One City, Jajo Gallery, Newark, NJ

Multiformity: The Art of Disease curated by Deana Haggag, Jajo Gallery, Newark, NJ

## Residencies

| 2019   |  |
|--------|--|
| טרווכי | Media Archaeology Lab. University of Colorado at Boulder (Forthcoming) |
|        |  |

2018 University of Maine, Innovative Media, Research and Commercialization Center, Researcher in

Residence, Orono, ME

2017 Interstate Projects, Brooklyn, NYC, NY

2016 The Robotics Institute, Carnegie Mellon University Pittsburgh, PA

## Selected Bibliography

2017 Vice, Creators Project, An Artist built an exact replica of Artificial Intelligence's Birthplace, by

Sean Neumann

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|      | Digital Trends, Artist re-creates the birthplace of Artificial Intelligence, by Dyllan Furness |
|------|--|
| 2016 | Atlas Obscura, Where Should Robots Go When They Retire?, by Sarah Laskow                       |
|      | iProgrammer, Sutherland's Trojan Cockroach On Show, by David Conrad                            |
| 2015 | Pittsburgh City Paper, The Year in Visual Art by Robert Raczka                                 |
| 2014 | The Warhol Blog Andy Warhola's Living Room   |

Pittsburgh Post Gazette, Grandma's belongings live as art installation in Lawrenceville, by Donna

Nelson-Jones

## **Grants and Scholarships**

| 2017 | Robotics Artist-in-Residence Grant, Carnegie Mellon University              |
|------|---|
| 2016 | Innovation with Impact, Graduate Research Grant, Carnegie Mellon University |
|      | Rembacher Chamber Music Award, Carnegie Mellon University                   |
| 2015 | Studio for Creative Inquiry Grant, Carnegie Mellon University               |
| 2013 | Full Tuition Merit Based Scholarship, Carnegie Mellon University            |
| 2010 | Public Art Scholarship, Rutgers University                                  |

## **Professional Affiliations**

Special Interest Group on Computer Graphics and Interactive Techniques, SIGGRAPH Institute of Electrical and Electronics Engineers

Association for Computing Machinery