

Curriculum Vitae

Catherine Griffiths

Assistant Professor, University of Michigan

Taubman College of Architecture and Urban Planning | Digital Studies Institute

Portfolio

www.isohale.com

Education

- 2015-2021 Doctor of Philosophy in Interdisciplinary Media Arts & Practice
Annenberg Fellow
University of Southern California, School of Cinematic Arts, Los Angeles, USA
- 2009-2011 Master of Architecture in Architectural Design
The Bartlett School of Architecture, University College London, UK
- 2002 Erasmus Exchange Programme, Complutense University of Madrid, Spain
- 2001-2004 Bachelor of Arts in Fine Art
Camberwell College, University of the Arts London, UK

Academic Experience

- 2021 Winter DIGITAL 358: How Do Algorithms See?
Digital Studies Institute, University of Michigan
- 2021 Winter ARCH 422: Situation Studio
Taubman College, University of Michigan
- 2021 Winter ARCH 600: Independent Study: Narrative Design with LIDAR
Taubman College, University of Michigan
- 2020 Fall ARCH 516: Architectural Representation
Taubman College, University of Michigan
- 2020 Fall ARCH 600: Independent Study: Narrative Design with LIDAR
Taubman College, University of Michigan
- 2019 Spring IML 501: Digital Media Authorship and the Archive
Co-instructor with Virginia Kuhn, University of Southern California
- 2016 - 2018 IML 288: Procedural Design and Critical Thinking
Co-instructor with David Johnson, University of Southern California
- 2019 Spring IML 365: Future Cinema
Teaching Assistant for Holly Willis, University of Southern California
- 2018 Fall CNTV 101: Reality Ends Here
Teaching Assistant for Michael Bodie, University of Southern California
- 2018 Fall IML 288: Procedural Design and Critical Thinking
Teaching Assistant for John Carpenter, University of Southern California
- 2018 Spring IML 203: Media Arts and Practice Studio II
Teaching Assistant for Evan Hughes, University of Southern California
- 2017 Fall CNTV 101: Reality Ends Here
Teaching Assistant for Jeff Watson, University of Southern California
- 2017 Spring IML 230: Media Design
Teaching Assistant for Evan Hughes, University of Southern California
- 2016 Fall IML 499: Hypercinema
Teaching Assistant for Gabriel Peters Lazaro, University of Southern California

Exhibitions

- 2020 *Geidai Games 01*, Group Exhibition, Tokyo University of the Arts (Geidai), Tokyo, Japan
- 2020 *Neurones: Simulated Intelligences*, Group Exhibition, Centre Pompidou, Paris, France
- 2019 *22nd Generative Art Conference*, Group Exhibition, National Etruscan Museum, Rome, Italy
- 2019 *Discrete Familiars*, Group Exhibition, Fort Worth Arts Center, Texas
- 2019 *At The Margins*, Group exhibition, Viewpoint Gallery, Society for Literature, Science, and the Arts, UC Irvine, California
- 2019 *iMappening*, Group exhibition, USC School of Cinematic Arts, Los Angeles
- 2019 *Performative Computation*, Group exhibition, Navel, Los Angeles
- 2018 *iMappening*, Group exhibition, USC School of Cinematic Arts, Los Angeles
- 2017 *Preservation*, Group exhibition (in collaboration with the art collective Ocean Earth Development Corporation), UNLV Marjorie Barrick Museum of Art, Las Vegas
- 2016 SLSA 2019 exhibition, Group exhibition, Society for Literature, Science, and the Arts, Atlanta
- 2016 *iMappening*, Group exhibition, USC School of Cinematic Arts, Los Angeles
- 2015 *Against Method*, Group exhibition, USC School of Cinematic Arts, Los Angeles
- 2014 *Blindspot Initiative*, Group exhibition, Keystone Gallery, Los Angeles
- 2009 *Situation Room: Technology Change/Climate Stability*, Solo exhibition (in collaboration with the art collective Ocean Earth Development Corporation), Arnolfini Centre for Contemporary Art, Bristol, UK
- 2007 *The Moment You Realise You Are Lost*, Group exhibition, Johann Koenig Gallery, Berlin, Germany
- 2007 *Home For Lost Ideas*, Solo exhibition with Dan Rees, General Public Gallery, Berlin, Germany
- 2007 *Muster Messe 2*, Art Fair presentation of Home For Lost Ideas project, Berlin, Germany
- 2006 *Sprout, Fidget, Freedom*, Group exhibition, Wolverhampton Art Gallery, Wolverhampton, UK

Publications - Books

- 2009 *Home For Lost Ideas*
Edited by Catherine Griffiths and Dan Rees, Published by Archive Books, Berlin
Collection of artworks and texts by 80 artists and curators
Nomination for the Gasag Art Prize, 2008

Publications - Peer Reviewed - Book Chapters

- 2021 "Cinematic Data Visualization" in *Design and Science*, edited by Leslie Atzmon, Bloomsbury Academic Press: London, UK. 2021

Publications - Peer Reviewed - Journals

- 2019 "Computational Visualization for Critical Thinking"
Journal of Science and Technology of the Arts, Volume 11, No. 2, Special Issue (2019): 9 -17.
- 2018 "Visual Tactics Toward an Ethical Debugging"
Journal of Digital Culture and Society. Rethinking AI: Neural Networks, Biometrics and the New Artificial Intelligence, Volume 4, Issue 1 (2018): 217-226.

Publications - Peer Reviewed - Conference Proceedings

- 2019 "Approaches to visualize and critique algorithms for ethical scrutiny"
Proceedings of the 7th Conference of Computation, Communication, Aesthetics & X, Milan, Italy (2019): 156 – 163.

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- 2019 “Visualizing Algorithms: Mistakes, Bias, Interpretability”
Abstract in Art Machines: International Symposium of Computational Media Art Proceedings. Hong Kong: City University.

Other Publications

- 2020 *Neurones: Les Intelligences Simulées*
Exhibition catalog, edited by Frédéric Migayrou and Camille Lenglois. Paris: Centre Pompidou / Éditions HX (2020). My work ‘Visualizing Algorithms Part II’ is presented, 188 - 189.
- 2019 *Blindspot Initiative: Design Resistance and Alternative Modes of Practice*
Edited by Jose Sanchez. Los Angeles: Evolo Press (2019). My work ‘Alluvium’ is presented, 128 – 137.

Conference Presentations & Talks

- 2021 Siggraph 2021, Virtual, August 2021, (forthcoming)
Panel Presentation: Visualizing decontextualization in the shifting ‘Domain’ of machine learning, in Reflections on the Ethics of Surveillance and Data Through Interactive Media Practices
- 2019 22nd Generative Art Conference. Rome, Italy, December 2019
Paper Presentation: Automata I & II: Generative art as a language of the sociopolitical
- 2019 Society for Literature, Science and the Arts 2019 Conference. Irvine, CA, November 2019
Paper Presentation: Transforming perspectives on machine learning through critical art practices
- 2019 University of Michigan, Stamps School of Art and Design. Ann Arbor, MI, September 2019
Presentation: Algorithmic Aesthetics, Critical Code, and Machine Learning Ethics
- 2019 xCoAx 2019: 7th Conference on Computation, Communication, Aesthetics & X. Milan, Italy, July 2019
Paper Presentation: Approaches to visualize and critique algorithms in ethically sensitive spaces
- 2019 Performative Computation Symposium: Interdisciplinary Programming Around AI x Improvisation, Navel LA. Los Angeles, CA, March 2019
Paper Presentation: Visualizing Algorithms: Mistakes, Obfuscation, and Latent Positions
- 2019 Code Collective Working Group, University of Southern California. Los Angeles, CA, February 2019
Presentation: Entry Points to Machine Learning for Artists
- 2019 Electronic Literature Working Group, University of Southern California. Los Angeles, CA, February 2019
Presentation: Entry Points to Machine Learning for Text and Image
- 2019 Art Machines: International Symposium on Computational Media Art, City University. Hong Kong, January 2019
Paper Presentation: Visualizing Algorithms: Mistakes, Bias, Interpretability
- 2018 Applied Computer Science Lecture Series, Woodbury University. Los Angeles, CA, September 2018
Lecture: Visualizing Algorithms
- 2017 Microsoft Research Design Expo: Intentional Design for Positive Cultural Impact in Mixed Reality Redmond, WA, July 2017
Project Presentation: Holographic Studio - Visualizing Ideas in Physical Space, in collaboration with Patrick Bender, Satrio Dewantono, and Keshav Prasad.
Awarded Best System Design

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- 2017 Codes and Modes Symposium: Reframing Reality, Virtuality, and Non-Fiction Media, Hunter College, CUNY. New York, NY, March 2017
Paper Presentation: From Cellular Automata to Surveillance
- 2016 Compositions Across/Between Edges, Surfaces, and Materialities Symposium, University of California, Los Angeles, CA, December 2016
Paper Presentation: The Computational Fourth Wall
- 2016 Society for Literature, Science and the Arts 2016 Conference. Atlanta, GA, November 2016
Paper Presentation: From Cellular Automata to Surveillance
- 2016 Technarte 2016. Los Angeles, CA, November 2016
Paper Presentation: The Computational Fourth Wall
- 2009 Arnolfini Centre For Contemporary Art, Artist Talk with Peter Fend, Bristol, UK 2009
- 2009 Archive Books, Artists Talk with Dan Rees on Home For Lost Ideas, Florence, Italy 2009
- 2006 General Public, Artists Talk with Dan Rees on Home For Lost Ideas, Berlin, Germany 2006
- 2006 Sparwasser HQ, Artists Talk with Dan Rees on Home For Lost Ideas, Berlin, Germany 2006

Professional Development Activities

- 2021 Curating Scholarship: A Workshop on the Visual Presentation of Research, Institute for the Humanities, University of Michigan, 7 & 8 May 2021 .

Academic Service

- 2020 Fall Summer Institute Committee, Digital Studies Institute, University of Michigan
- 2021 Winter Summer Institute Committee, Digital Studies Institute, University of Michigan
- 2021 Winter Taubman College Admissions Committee, University of Michigan

Peer Review & Curatorial Service

- 2021 Digital Humanities Quarterly, Special Issue: Critical Code Studies
Peer-reviewer
- 2020 Critical Code Studies Working Group, January 20 - February 09
Feminist AI Discussion Leader
- 2019 Spectator Journal 40.1
Peer-reviewer
- 2018 Critical Code Studies Working Group, January 15 - February 05
Co-organizer

PRAXIS, Exhibition & Artist Talks Monthly Series

USC School of Cinematic Arts, Los Angeles, California
Co-founder and co-curator

- April 2017 PRAXIS VII: Landscapes of the Anthropocene
- March 2017 PRAXIS VI: Exploring Social Systems and Feelings
- February 2017 PRAXIS V: Open-Source Design for Community Building
- November 2016 PRAXIS IV: Media, Activism, and Imagination
- October 2016 PRAXIS III: Experimental Storytelling
- September 2016 PRAXIS II: Data Visualization
- April 2016 PRAXIS I: Design Methodologies

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2006 Dialogues of Winter Discourses of Spring, February 28 – June 06
Co-curator of weekly series of art talks, Sparwasser HQ, Berlin, Germany

Workshops

2019 Intro to Artificial Intelligence: Dissecting Artisanal Datasets Workshop
STACKED Expo at Glendale Tech Week, Los Angeles

2014 Spatial Data Visualization Workshop
Arch 599, USC School of Architecture, Los Angeles

2014 Geo Data Viz Workshop
Blindspot Initiative, Los Angeles

Professional Affiliations

MIDAS: Michigan Institute for Data Science, University of Michigan, Faculty Affiliate, 2021 -
ESC: Center for Ethics, Society, and Computing, University of Michigan, Faculty Affiliate, 2021 -
Architectural Computational Design + Construction (ACDCC) Group, University of Michigan, 2021 -
The Humanities and Critical Code Studies Lab, University of Southern California, 2016 - 2020
HASTAC Scholar, 2016 - 2018

Awards & Funding

2021 PI, RCI Artistic Productions Grant, Project Title: Art Exhibition Design and Development for Critical Algorithm Research, University of Michigan, \$10,667

2021 PI, LSA Summer Research Support Grant, Project Title: Art Exhibition Design and Development for Critical Algorithm Research, University of Michigan, \$5,684

2021 Co-PI, Get it Together Grant, Project Title: Architectural Computational Design + Construction (ACDCC), University of Michigan, \$5,000

2020 USC PhD Achievement Award, \$5,000

2019 USC Graduate Grant for Research and Writing, \$5,000

2019 USC Graduate School Travel Grant, \$1,500

2018 Foundation for Contemporary Arts Grant, \$2,500

2017 Microsoft Research Design Expo, Best System Design Award

2015 Annenberg PhD Fellowship 2015-2020

2015 Rock Hudson Scholarship, \$5,000

2008 The Elephant Trust Grant, £2,000

2008 Nomination for Gasag Art Prize

2007 Arts Council England Grant, £5,000

Creative Research

2021 *Convolutional Domains*
An algorithmic and cinematic visualization software that is programmed to explore a convolutional neural network, an advanced machine learning classifier that visualizes how images pass through a model and are interpreted algorithmically. It poses questions about the interpretability problem and system agnosticism. The second phase of the project will locate the system in a specific socio-political context.

2020 *Visualizing Algorithms Part II*
Video Installation commissioned by the Centre Pompidou, Paris. Animation of a simple machine learning classifier built from a custom software. The piece is visualized through an expressive painterly aesthetic to bring an audience closer to the algorithm's inner landscape and process of non-human cognition.

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- 2019 *_Evolving*
Simulation and Video Installation. Computational visualization of a genetic algorithm and the process of learning juxtaposed with cinematic scenes relating to notions of alternative intelligence building in the arts.
- 2018 *Visualizing Algorithms Part I: Decision Trees*
Interactive Application. Invites a user to navigate and analyze a simple machine learning classifier to overcome computational obfuscation and provide access to an algorithm, to think through questions around autonomous decision-making and transparency.
- 2017 *Automata I + II*
Simulation and Video Installation. Computational visualization of the underlying computational concepts used in computer vision systems. Tracing the logic of a cellular automata through to the gaze of a surveillance camera.
- 2016 *Cinema for Robots*
Video Installation and Interactive Application. Experiments with updating the concept of reflexivity in the arts for contemporary computational technologies, in this photogrammetry and drones.
- 2016 *Astray*
Interactive application. An experimental branching narrative and cinematic experience exploring the relationship between emerging affective computing technologies and human feelings of connection and disconnection.
- 2015 *LA River*
Animation. A procedural data visualization that juxtaposes biochemical data from the Los Angeles River, with sequences of aerial drone cinematography.
- 2014 *Alluvium*
Animation and Video Installation. A cinematic flow visualization of the imperceptible environmental changes to the landscape of Death Valley in California.
- 2013 *River Thames Multi-Register Survey: Cinematic, Biochemical, Lidar*
Animation and Video Installation. A multi-register exploration of a site in the River Thames Estuary near London, comparing how different modes of representation from the cinematic to the geomatic and biochemical, effect the notion of value of a place.
- 2013 *Nano-Scanning*
Animation. A data visualization proposal that recreates and speculates on biological representation and aesthetics.

Invited Juries

- 2019 M.Arch Technology Seminar in Artificial Hybrid-Cityscapes, University of California, Los Angeles, School of Architecture and Urban Design
- 2019 M.Arch Seminar in Experimental Representation, University of Southern California, School of Architecture, Los Angeles
- 2018 M.Arch Seminar in Experimental Representation, University of Southern California, School of Architecture, Los Angeles

Professional Experience

- 2014-2015 Design Consultant, Los Angeles
Working with 5D Design Studio on speculative fiction scenario for Nike, and multiple projects for IMH.

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- 2012-2013 IMH, London
Consultant in engineering firm, producing engineering visualizations for marine and infrastructure applications.
- 2006-2009 Ocean Earth Development Corporation, Berlin/London
Consultant in architecture firm. Principal Designer of pilot study in North Sea. Research at Institute of Oceanology, Qingdao, China.
- 2006-2008 Blackboard Films, Berlin/Los Angeles
Production Assistant in independent film production company. Production Coordinator on the short film 'Pieces of Nature' shot in Frankfurt and Associate Producer on the feature film 'The LA River Project' shot in Los Angeles.
- 2005-2006 Sparwasser HQ, Berlin
Curatorial Intern and organizer of lecture series